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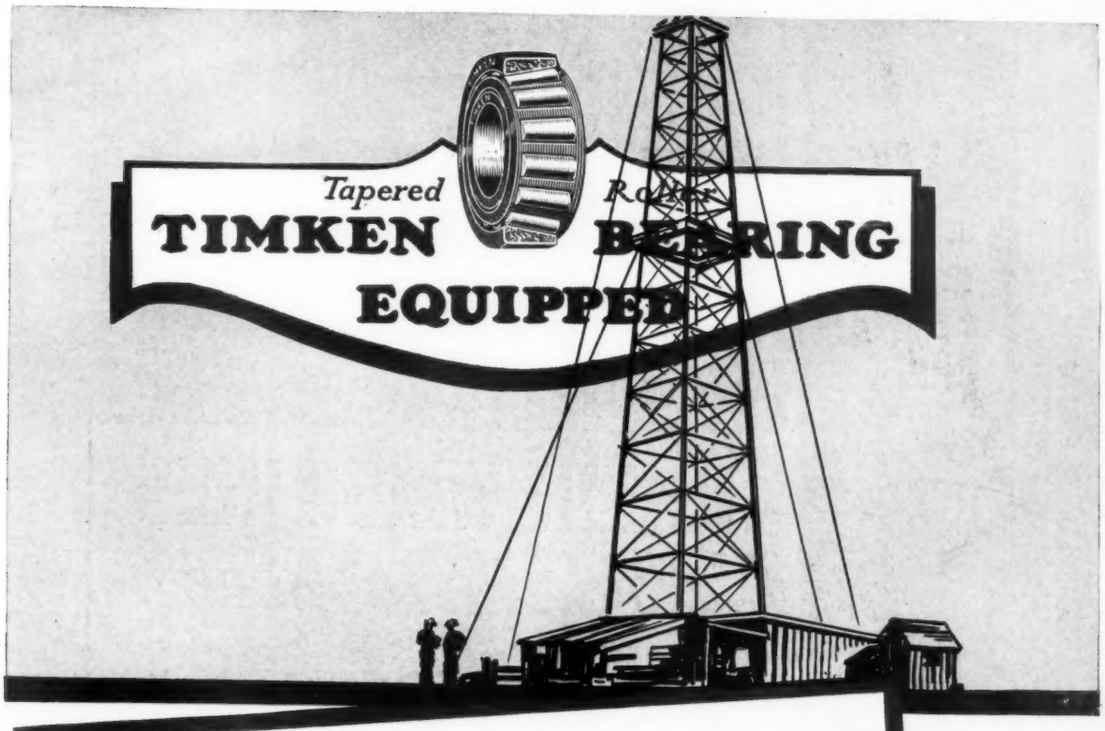

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CORONADO *found no* gold in KANSAS

But UNION WIRE LINES *find "gold" there now!*

Historical research proves that Coronado and his band of 36 Spanish adventurers explored Kansas only 49 years after Columbus discovered America and 44 years before Raleigh planted the first white settlement in America at Roanoke, Virginia. After failing in his search for gold, Coronado returned to Mexico feeling that his daring and difficult expedition had been fruitless.

But in this same region where Coronado found no gold, UNION Wire Lines today are finding "black gold" in plenty. It is an interesting coincidence that Coronado brought his search for treasure to an end at the Indian city of Quivira in what is now Rice County, and that oil interest in Kansas is focused on Rice County at this time. Throughout the oil fields of this very active oil state, UNION Wire Lines have become leaders and favorites because of their exceptional durability.

The photograph shows the Equity Gas Company's "Cora Shaffer Well No. 1," being drilled with UNION Lines near Bunker Hill, Russell County, Kansas. The men, left to right, are: J. A. Saling, farm boss; Jess Hunt, Jarecki Mfg. Co.; Grit Burke, driller; Harry Kessler, tool pusher; H. M. Humphrey and H. E. Frye, Union Wire Rope Corp.

DESCRIBED KANSAS AS "LAND OF PLENTY"

Though Coronado failed to find Quivira a "city of gold," and though he abandoned there his search for golden cities, he reported Kansas a "land of plenty," writing to the King of Spain:

"The country is the best I have ever seen for producing all the products of Spain, for, besides the land itself being very fat and black, and being well watered. . . . I found plums like those of Spain, and nuts and very good sweet grapes, mulberries, elderberries, succulent buffalo beans, sheep sorrel, ground cherries, wild onions, Indian turnips, walnuts and pecans." He found the Quivirans growing crops of corn, beans, melons, squashes and pumpkins."

Coronado brought into Kansas the first horses the Indians had ever seen.

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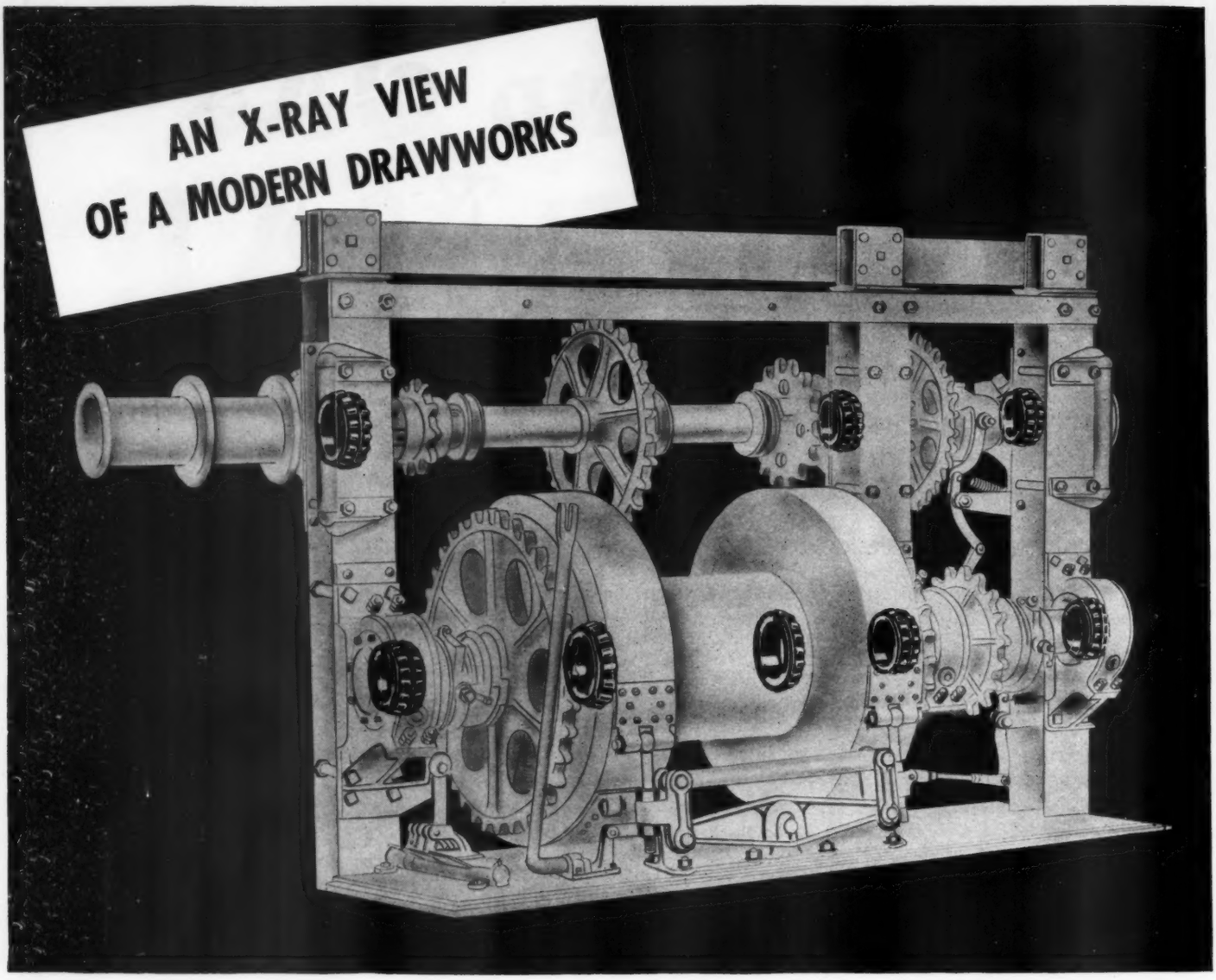

Like every other kind of heavy duty equipment used in the oil fields, the drawworks must conform to the exacting requirements of the new era of oil production. That means it must be adaptable to higher speeds and capable of handling heavier loads as wells are driven deeper and deeper to tap precious oil reserves. In modern drawworks design an increased complement of Timken Bearings assures the full utilization of power for every operation through the complete elimination of friction. Drum shafts and counter shafts are held rigidly in alignment. Radial, thrust and combined load capacity includes an ample reserve for any emergency. It will pay you to see that you get Timken Bearing protection when buying new drawworks, rotaries, swivels, drilling engines, pumps, compressors or any other kind of equipment.

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Small Comfort in Figures of This Week

PRODUCTION figures for the last week, as they relate to both crude oil and motor fuel, reveal little calculated to remove misgivings from the minds of persons in the industry who have endeavored to establish stabilized markets. Daily average crude output in the United States, instead of dropping, as it should have in order to bring it in line with recommendations of the Bureau of Mines, rose about 27,000 barrels, in comparison with an increase of only 1,300 barrels the preceding week.

On the face of reports from producing areas, Oklahoma was the chief offender, its daily average output being about 20,000 barrels higher than it was the week before. The most pronounced spurt was in the Oklahoma City field, which registered a gain of 16,500 barrels. Even allowing for the common practice of producing the whole allowable in the first part of the month and then pinching in during the final week or so, it is considered unlikely that the heavy overproduction now being registered will be overcome. The tendency to treat allowables lightly has evoked a warning from W. J. Armstrong, state conservation officer, to all operators in the Wilcox zone of the Oklahoma City field that it is "absolutely necessary" the June allowables be observed and that any producer exceeding them through bringing in new wells will have to make up the difference by reducing the output of other wells. Texas production was down 5,800 barrels; not an impressive record, but better at least than that of its neighbor on the north. Kansas production was up, but well within the Bureau recommendation. Changes in other areas were not of particular significance.

Production 2,963,639
Increase 26,982

Refinery operations are still too high. Although withdrawals from storage are reported, they are not commensurate with the huge inventories which must be disposed of in the next four or five months if the season of heavy consumption is to be closed with surplus stocks cleaned up. In point of consumption, shutting the eyes to all other important factors, the gasoline business in 1936 promises to surpass that of any other year in oil history. Whether it will be also a year of reasonable profit or just another year in which earnings are sacrificed to the great god gallonage remains to be determined.

In the crude production division interest turned to the first well on state-owned land in the Oklahoma City field. The well made a potential of 11,263 barrels, but the operators drilled deeper and were to test again. Fifty-eight wells were completed in the East Texas field, but daily average production declined 6,800 barrels. A new pool was opened in the Green Lake area, Galveston County, Texas Gulf Coast, the discovery well producing from what operators of that region call a shallow sand, 3,610-20 feet.

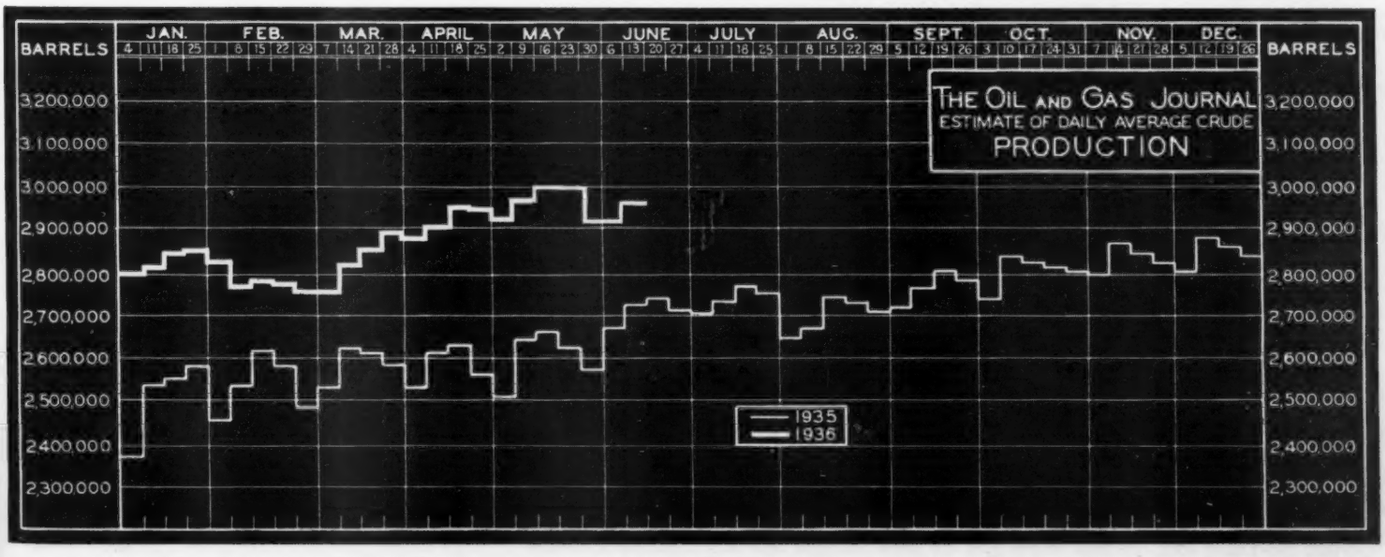
Daily Average Production for Week

	June 13 1936	June 6 1936	June 15 1935
Oklahoma City	151,275	134,775	168,725
Seminole-St. Louis	102,250	100,928	104,425
Remainder of State	313,725	311,747	259,075
Total Oklahoma	567,250	547,450	532,225
East Texas	439,754	446,554	475,743
West Texas	179,091	178,041	146,534
Texas Panhandle	56,446	60,396	55,772
North Central Texas	84,009	84,059	91,907
East Central Texas	53,010	53,255	49,465
Gulf Coast—Texas	249,946	246,856	182,346
Southwest Texas	85,444	84,393	59,868
Total State of Texas	1,147,700	1,153,554	1,061,635
North Louisiana	75,145	79,020	22,965
Gulf Coast—Louisiana	144,303	147,406	115,208
Total Louisiana	219,448	226,426	138,173
Santa Fe Springs	43,900	44,750	40,750
Long Beach	68,500	68,300	75,250
Kettleman Hills	77,100	76,800	59,500
Remainder of State	393,500	390,150	397,650
Total California	583,000	580,000	573,150
Kansas	152,325	135,150	148,875
Arkansas	29,745	29,880	30,770
Eastern fields	108,500	107,250	105,000
Michigan	32,511	32,157	42,919
Southeast New Mexico	65,620	65,620	52,370
Rocky Mountain area	57,540	59,170	53,170
Total United States	2,963,639	2,936,657	2,738,287

Crude Oil Stocks in U. S.

(BUREAU OF MINES ESTIMATE)

Week ending May 30, 1936	314,020,000
Week ending May 23, 1936	314,325,000
Week ending June 1, 1935 (Revised)	338,143,000



SPARKS FROM THE NEWS

Bubble

Kansas with million barrels potential finds it has doubled reserves only to cut its percentage allowable in two.

Preview

New Mexico cutback under proration is practically same as in Kansas. It might be well to figure out such things before starting to drill.

Definition

Proration as practiced today is a movement to restrict production rather than to promote scientific methods of production.

Defense

Siberia reported buying high test gasoline from California, Black Sea and Persian Gulf ports. One way to avoid sanctions is to stock up in peace.

Convalescence

Wholesale price of oil products was 13 per cent better in first quarter but still only 55.4 per cent of normal, lowest of any commodity.

Platform

Illinois Republican platform declares against diversion of gasoline taxes, reduction to two cents and constitutional amendment to prevent increase.

No Amateurs

Paraphrasing Major Bowes the Louisiana legislature wheel spins round and round and what comes out nobody knows.

Novelty

Suggestion is now made producers should reduce production until demand forces price revision. Well, it never has been tried.

Warning

The industry has just had a demonstration of the worst way to develop an oil field.

Contact

Town council of Dunnellen, Fla., voted down cent gasoline tax after hearing from local voters. We need closer touch with legislators.

Betterment

Lower Gulf Coast fields establish new record exceeding even days of unrestricted production. And more profitable.

By Acclamation

Sir John Cadman sees "steady improvement" and Sir Henri Deterding "commencement of recovery of oil industry." This makes it unanimous.

Optimism

Passing of price cutting in East Coast markets encourages rumors of cent advance later in month. From one extreme to other.

Prerequisite

Louisiana may vote on constitutional amendment for codification of its oil laws. Revision should precede codification.

Sidetrack

Recent eastern alarm about threatened crude price reduction seems to have been premature. Latest hope postpones it for summer.

Long Range

Chemical Foundation head predicts alky-gas will displace gasoline in 25 years. By that time prediction will be forgotten.

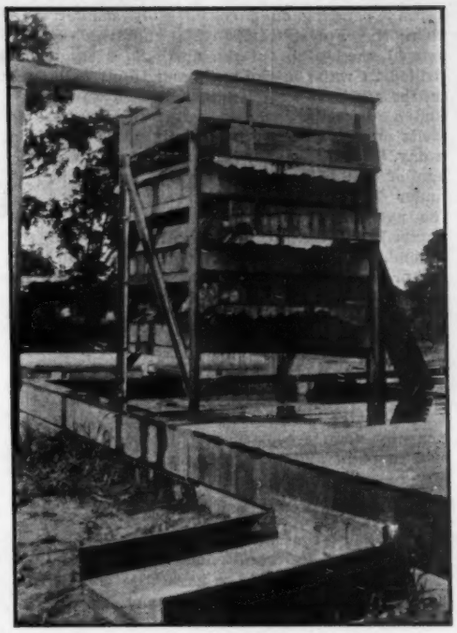
Big Business

Most remarkable feature in automotive records is increase in trucks. Which explains part of gasoline demand increase.

Notice

Each and every oil producing state should be represented at next meeting of Interstate Compact Commission at Dallas, Tex., July 31. What is done or left undone there will directly affect them.

Remarkable Results From Water Flood in Eastern Oklahoma



Aerator for Harmon & Whitehill project

By DAL DALRYMPLE

A new day has dawned for the Nowata-Chelsea field of northeastern Oklahoma, and a mild boom riding on the crest of a water flood is under way. Many rigs are running, new wells are being drilled, production is soaring and many thousands of dollars are being spent in the new development that has come to this oldest of Oklahoma oil producing areas. Many drillers and field men who have been idle or worked only at intervals now are steadily employed. The city of Nowata is crowded with oil men, the supply houses are reaping a harvest of new business, rental properties are at a premium, sales in mercantile establishments are increasing and a general air of prosperity, similar to that of a boom town in a new flush area, prevails. All this in an oil country that dates its first development as far back as 1889.

Between 15,000 and 20,000 wells have been drilled in the Nowata-Chelsea area, and the adjacent Delaware-Childers district, since the Cherokee Oil & Gas Co. drilled the first wells on their leases near Chelsea in 1889. It is one of the largest almost solidly drilled oil fields in the world, ranking favorably in area with great Bradford and East Texas fields. A tremendous field and a tremendous development, yet—

Oil men who have seen the initial results of the new work at Nowata predict that more wells will be drilled in the district in the next 20 years than have been drilled in the past 40 years! They predict that more oil will be recovered in the next two decades than has been produced since the turn of the century up to date!

Water flooding of the oil producing sands that underlie the far-flung Nowata field will be responsible for this anticipated development of the future. Water flooding of a small portion of those sands in the past year has been responsible for the "boom" that already has come to Nowata.

Forest Producing Co. Enters Field

Slightly more than one year ago the Forest Producing Co., of Bradford, Pa., took over the properties of the Warner-Caldwell Oil Co. in the Nowata field and began a systemmatic water-flooding program. The Forest Oil Corp. had successfully carried on a similar program in the Bradford and Allegany fields in Pennsylvania and New York, but here the conditions met by the subsidiary company were different from those of the eastern areas and so the first year's work at Nowata necessarily was largely experimental. Methods of flooding that had been successful in Pennsylvania frequently were not so successful in Oklahoma, and there was much effort wasted before suitable methods for the Nowata district were evolved.

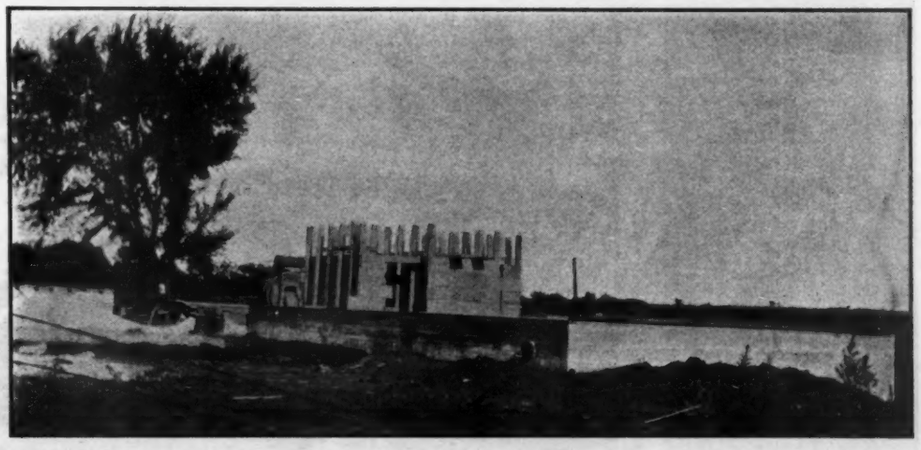
As an example, the Forest company drilled a well in an effort to find water sufficient for flooding the first 160-acre tract on which it started work at Nowata. An abundance of water was found, but it was the radium variety. Much more effort and considerable money was expended in building a special plant in which to treat the radium water, removing corrosive qualities so it would be suitable for the project. All to no avail. Despite filtration and other treatment, the radium water emulated the leopard and did not change its spots, remaining just radium water. Then the operators laid a line to Big Creek in section 18-26-17, a mile away, and piped water from that stream.

The Forest company started work on the first 160-acre tract June 1, 1935, following the five-spot pattern with the oil well as the five spot. Old oil wells were plugged and new ones drilled. At the end of one year, 61 oil wells and 81 water-intake wells had been drilled. Prior to this development, the old wells on the tract had been producing around one-fourth to one-half barrel of oil each, total daily production being around 50 bbls. That stripper production has been stepped up amazingly as a result of the water flooding and drilling of new wells. The operators have withheld definite information, but it was unofficially admitted the quarter-section now is producing a minimum of 1,600 bbls. daily. Most outside estimates place the total production around 2,500 bbls. daily, with some of the more optimistic observers saying it has soared as high as 4,000 bbls. on certain days. Even if the 1,600 bbls. daily is the nearest correct figure, that is a man-sized increase over the 50 bbls. of a year ago. About 2,000,000 bbls. of water were pumped into the Bartlesville sand during the year.

H. J. Walter Co. is erecting new plant. Old plant in background

The company has erected two batteries of tanks, one at each end of the tract. There are two 1,000-bbl. tanks, two 500-bbl. tanks and six 250-bbl. tanks in each battery. That is a total of 9,000 bbls. tank capacity. Stanolind Pipe Line Co. is taking the oil.

The H. J. Walter Co. has a water flooding project on 160 acres in two tracts on the Verana Coker lease in SE SE section 1-25-16, east of No-



Forest Producing Co. has started work on this water treating and pumping plant

wata. Operating on a considerably smaller scale than the Forest company, it nevertheless has proved successful. On the north 80 acres it has drilled 24 water-intake wells and 15 oil wells, and on the south 80 acres it has drilled 20 water wells and 8 oil wells. Prior to water flooding, 42 old wells on the tract were producing 18 bbls. of oil a day. Today, 20 new wells are producing an average of 250 bbls. daily, and this project is still under development. The Walter company is using the pattern of 440 feet between wells. It has pumped about 750,000 bbls. of water into the ground, obtaining the water from wells drilled on the property. Radium water was not encountered Water meters for each intake well are read every day, so a close check is kept on the amount of water in the ground. The intake runs about 40 to 50 bbls. of water per well per day.

The Walter company has been utilizing an old air pressure plant for pumping the water into the sand. Results have been so satisfactory that the company now is constructing a larger and more modern plant and installing new pumps, preparatory to enlarging its development program.

Harmon & Whitehill recently completed development of a 40-acre tract, on a program similar in its general aspect to those of the Forest and Walter companies. They pumped the first water in in March and no results have been obtained as yet, as it may be four to six months after the pumping of water begins before an increase in oil production is noticed. This firm has one of the most modern treating and pumping plants in the field. The water is obtained from a well drilled on the acreage. Like the Walter company, Harmon & Whitehill did not run into radium water; because, it was explained, their acreage is situated nearer the river bottom than that of the Forest company. Harmon & Whitehill have started development on their second 40-acre tract.

Chelsea District

A water flooding project has been under way on Carter Oil Co. acreage since 1931, when the late B. H. Collins began experimenting in a minor way on tracts in sections 22 and on 23-24-16, Rogers County, in the south or Chelsea end of the field. Sand conditions in that area were erratic, with some dry sand, some shale and naturally low production. Operators familiar with the territory say that sand conditions there were among the worst in the field, so that maximum flood benefits could not be obtained. Even so, the production was increased considerably, some parts of the tract producing as high as 3,000 bbls. per acre due to the flood. Another project was started in section 3-24-17, with four input wells drilled merely as a test to see if the flood would work, and although water injection was intermittent, production was increased more than 10 bbls. a day. Mr. Collins died before the projects were completed, but the Carter Oil Co. became satisfied with the promise of success and have been carrying on the work.

South of Alluwe

Four other tracts are in various stages of development. The Forest company has drilled 78 wells on an 80-acre tract, and recently started injecting water. The same company is remodeling the old Wiser Oil Co. tract south of Alluwe, an 80-acre project. A new pumping and water treating plant is being erected, and drilling and plugging operations have started. L. C. Converse and others are developing a 40-acre tract southeast of Nowata, and have just started pumping in water. Coring to test the sand on a 40-acre tract belonging to George Woodard, independent operator of Nowata, started last week.

Indications are that numerous other projects will be started within the year, operators being encouraged by the mounting production totals for the Nowata area. Before the start of water flooding, the field's daily total production averaged around 4,500 bbls. It now is up to 7,500 bbls. daily —and this thing of forcing the oil out with water has barely started!

Nowata a Big Field

The Nowata field is about 20 miles long north and south, and varies from 1 to 6 miles wide. It comprises about 75,000 acres. Practically all production is from Bartlesville sand, ranging in depth from 350 feet in the southern part of the field to 800 feet in the northern end. The productive sand varies in thickness from 5 feet to 80 feet, with the average over most of the field being from 25 to 30 feet. There is no major structure in the field, the trapping being apparently caused by the edging out of the sand. The eastern edge of the field is formed by the edging out of the sand, with shale taking its place. The Bartlesville-Dewey fields lie to the west.

Here is a field of some 75,000 acres, and less than 1,000 acres have been flooded. A tremendous activity is ahead, if flooding is to be carried to all parts of the big area.

Initial production of wells in the field in its early days ranged from 5 bbls. to as high as 1,500 bbls. daily. Up to the time of air and gas repressuring the average production per acre had been about 3,000 bbls. Where repressuring was fairly intensive, an additional 1,000 to 2,000 bbls. per acre was produced.

It is estimated by various authorities, including the Bureau of Mines, that the percentage of oil recoverable by natural production methods in the Nowata area is from 15 to 20 per cent. This means that from 80 to 85 per cent of the oil remains in the ground, unrecoverable except by artificial means. The oil is there, needing only an expulsive force to recover a large part of it.

A conservative estimate places the amount of oil still remaining in the sand in the Nowata field at 10,000 bbls. per acre, or a total of 750,000,000 bbls. of oil—in underground tankage at from 350 to 800 feet deep. Other estimates have placed the oil underground at 12,000 to 15,000 bbls. per acre.

Around 40 to 50 per cent of residual oil in the Bradford field is recovered by water flooding. The work still is too experimental in Oklahoma to accurately estimate the amount recoverable by flooding, but results so far indicate that it may approximate that of Pennsylvania. If that is true, then upward of 300,000,000 bbls. will be forced out of the sands by water in the Nowata district.

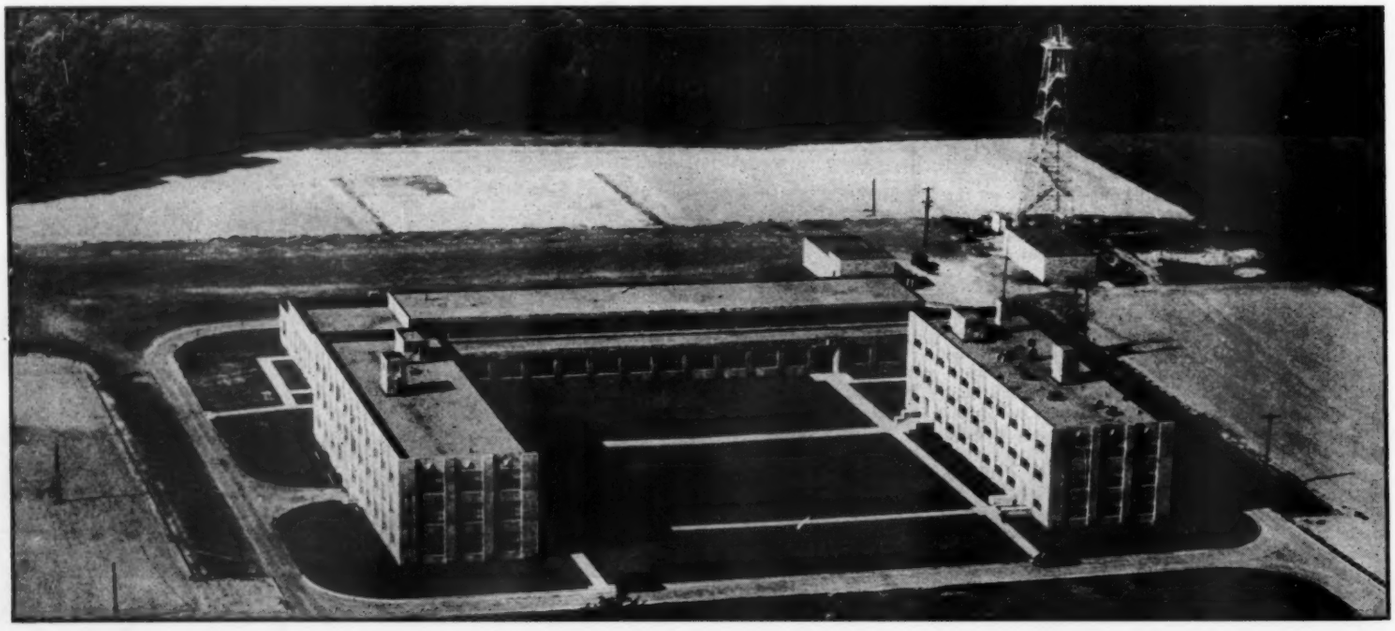
Sufficient Water Is Problem

The dark cloud on the horizon is provided by the problem of obtaining water for this work. The experience of the Forest company in getting radium water in a drilled well seems to condemn a part of the field for that purpose. Wells drilled by other operators nearer the river are providing sufficient water now, but when repressuring is under way over a large part of the field it is exceedingly doubtful if the supply from such wells will hold up. The small streams of the area will provide individual operators with water for limited operations, but they are small and carry very little water during the greater part of the year. Operators, determined to enlarge flooding projects, already are seeking a solution of the water supply problem.

It will be a long program. The Forest company had nine machines drilling on its first 160-acre tract during the past year. It was estimated that if the company should increase the number of drilling machines to 45, or five times the number in operation the past year, 20 years would be required to complete water flooding the 16,000 acres the company has under lease. On another tract the Walter company had one machine drilling at the rate of four wells a month. At that rate, the company would require three years to completely drill and flood its 500 acres.

The Forest company has put 100 extra men to work; the Walter company has 50 men at work, and other operators already carrying on flood projects have increased their employed personnel comparatively. As additional projects are started, still more men will be employed.

GULF OIL CORP.'S RESEARCH LABORATORY AT HARMARVILLE, PA.



Lower Gulf Coast Field Development Indicates Its Growing Importance

By GEORGE WEBER

HOUSTON, Tex., June 15.—The Lower Gulf Coast already represents a sizeable source of crude. Through steady development in opening new fields and expansion of existing ones, this area shows every indication of growing importance.

The finding of oil along the Lower Gulf Coast dates back only eight years. In that time 38 fields have been opened and nearly 67,000,000 bbls. of crude produced. By May 1, 1936, the daily average production passed the 70,000-bbl. mark. The daily average has passed the former peak of April, 1931, when the Refugio and Pettus fields were at the height of development.

However, the record yearly figure of 13,420,045 bbls. in 1930 cannot be compared with totals today in reaching an index of the value of this district as a crude source. The Refugio field responsible for the bulk of production during 1930 was being exploited rapidly, wells produced without restriction. Under present close supervision and proration, comparable production totals represent vastly more in future potential production.

TABLE 1—YEARLY PRODUCTION OF LOWER COASTAL FIELDS

1928	267,320
1929	2,188,472
1930	13,420,045
1931	11,922,682
1932	5,812,576
1933	5,542,556
1934	7,706,321
1935	12,833,282
First four months 1936	7,023,095
Total production to May 1, 1936	66,716,349

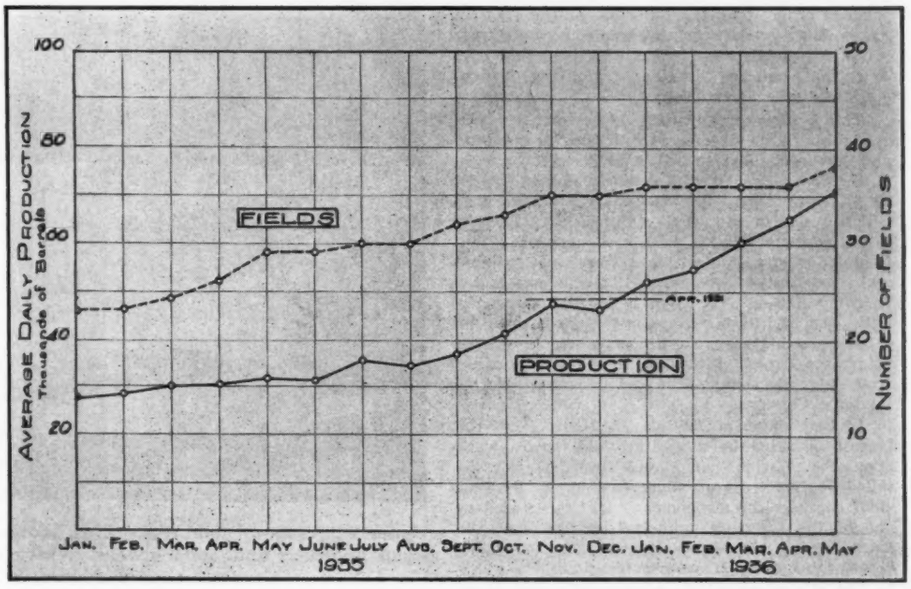
The accompanying chart shows the gradual gain in daily average production in lower coastal fields from January 1, 1935, to May 1, 1936. The increase is essentially a result of development and expansion of existing fields rather than discovery of new ones. Since January, 1936, the daily average production has attained a new record each month, exceeding the flow from the unrestricted operations of 1930 and 1931 in Refugio and other fields.

The decline of the Refugio field is apparent in Table 2. It has produced more than twice as much crude as the next largest pool, but now ranks fifth in daily output. Total accumulative production to May 1, 1936, was 66,716,349 bbls. Of this, 59,693,254 bbls. was produced up to January 1, 1936. Assuming the remaining eight months of 1936 see the production rate unchanged, the total for the year would constitute nearly one-third of the total recovery to that date.

Including a strip from Jackson County south to the Rio Grande, the lower coastal region embraces 12 oil producing counties at present. Three counties, Nueces, San Patricio and Refugio, account for nearly 75 per cent of the present production, and further subdivision shows a few larger fields producing the bulk of the crude. Outstanding is the Greta field of Refugio County, where further activity has opened two deeper sands, which account for the field's largest output, and indicate potential reserves to keep this field in the lead for some time.

TABLE 2.—OIL PRODUCTION IN LOWER COASTAL DISTRICT

Fields, County—	Year opened	Accumulative production	Daily average production
Agua Dulce, Nueces	1930	198,813	43
Angelita, San Patricio	1934	33,691	....
Baldwin, Nueces	1935	153,611	829
Clara Driscoll, Nueces	1935	19,321	149
Coletto Creek, Victoria	1933	311,711	778
Dinero, Live Oak	1935	36,280	10
Fort Merrill, Goliad	1935	24,057	80
Greta, Refugio	1933	11,763,503	17,268
Keeran, Victoria	1932	388,234	290
Kingsville, Kleberg	1928	582,181	59
McFadden-O'Conner, Victoria	1932	329,649	285
McNeil, Live Oak	1934	186,542	159
Mt. Lucas, Live Oak	1934	116,733	9
Pettus District, Bee-Goliad Karnes	1929	12,526,521	12,280
Placedo, Victoria	1935	430,689	2,786
Plymouth, San Patricio	1935	1,409,474	8,296
Port Lavaca, Calhoun	1934	251,158	573
Refugio, Refugio	1928	32,304,378	4,890
Saxet, Nueces	1930	4,197,055	8,200
Saxet Heights, Nueces	1935	275,474	4,465
Seeligson, Jim Wells	1934	7,512	....
Sinton, San Patricio	1934	61,717	24
Taft, San Patricio	1936	22,135	260
Tomoconner, Refugio	1934	921,110	3,338
Vanderbilt, Jackson	1934	91,973	84
White Point, Nueces	1930	73,827	12
		66,716,349	



Daily average producion curve of fields in the Lower Gulf Coast showing consistent increase and opening of new fields since January 1, 1935. The former peak of production in April, 1931, was passed in January this year

A recent discovery in the Saxet field of Nueces County has enhanced the value of that field. The new deep Frio sand at 5,800 feet was brought in by A. F. Holliday in April, 1936, when No. 1 Griffith was deepened and completed for more than 500 bbls. per day. This discovery caused an immediate program of drilling new wells and deepening old ones. At present the new horizon, productive over a wide area, shows for the best pay sand, and apparently contains the best body and uniformity of any sand in Saxet.

The second most important sand in the field was also recently opened. In and around the town of Clarkwood, operators have for several months been completing good producers in a 4,400-foot sand. Activity at present is restricted mainly to the 5,800-foot, 4,400-foot, and 4,800-foot sands. The field extends over a large area from Nueces Bay on the northeast to the town of Clarkwood on the southwest, a distance of 5 miles. Expectation of further production in deeper sands is good. The geology is noted for the number of different sands producing oil, and it is believed further expansion depends only on drilling to deeper levels.

To the east of Saxet, the Saxet Heights or Corpus Christi field has had one of the most intensive drilling booms in recent years. Although drilling has lagged somewhat during the past few weeks, the field is still one of the most active in the region. Future importance of Saxet Heights is, however questionable. The oil sand now producing is comparatively thin, overlain by a thick high pressure gas sand. The resulting high gas-oil ratio of producing wells has brought a drastic cut in allowable, and surveys are being made to determine measures for best production. Unless further producing sands are found Saxet Heights will not attain outstanding importance.

Possibilities for production increases over the next few months are shown in several small fields recently brought into being. The Clara Driscoll field was brought in late in 1935, but the failure of an offset test to the discovery resulted in a cooling of interest. When O. W. Killam's No. 1 Ellich, about 1 mile distant, blew out two weeks ago and ran wild for nearly a week, flowing much oil under a high pressure, interest revived.

Shows for oil production have been found in three wildcats recently. In San Patricio County Benedum & Trees Oil Co. No. 2 Welder made tests in two sands which showed oil, but commercial production failed. Another test is approaching the sands in a further attempt to open a field west of Plymouth.

Wirick Camp in Fitts Pool Is Model of Modern Oil Field Accommodations

By L. G. E. BIGNELL

In keeping with the marked improvement in every type of machine used in the drilling for and producing of oil the modern oil field camp now compares very favorably with any town or city both as to housing facilities and recreational and educational features. These changes have slowly evolved from the old rag and shack towns so commonly known to the oil fields of the past. Those poorer type homes were usually assembled or built by the followers of the oil field booms, but now the operating companies take great pride in providing their men with modern homes or suitable building sites and permitting them to erect any type house desired.

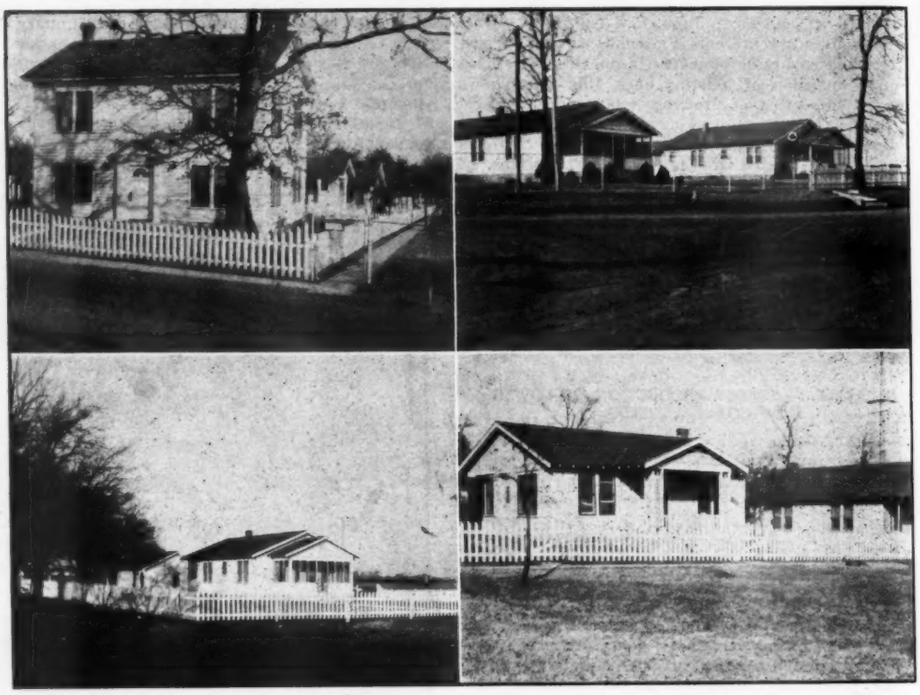
This improvement in oil field housing has been gradual, as have all improvements in this industry, and has probably reached as high efficiency in E. H. Moore, Inc., Wirick camp located in section 29-2-7, Fitts field, Pontotoc County, Oklahoma, as will be found in any oil field in this country. The camp consists of 13 dwellings, general office, field office of geological staff, warehouse, general and special truck garages, two bunk houses and a boarding house. The camp is located about 2½ miles east of Fittstown, a small oil field town, located upon highway No. 48, popularly known as "Murray's Lane." Fittstown is about 12½ miles from Ada, the county seat and principal town of Pontotoc County.

In the winter of 1935 E. H. Moore, Inc., the largest operator in the Fitts field, began work upon the Wirick camp and most of the detailed engineering was supervised by K. R. Teis, chief engineer for the company and recognized as one of the foremost municipal engineers of the state, having served as city engineer for Tulsa before joining the Moore organization.

The site selected is in a grove of native trees, some of which were cut away to facilitate building operations but the better ones retained for shade and landscaping effect. The dwellings for the superintendent, chief clerk, lease foremen and other staff members are laid out in one long and one short row along a section line roadway with a large lawn in front of all houses and individual lawns and garden patches around each house.

The general office is at the west end of this row of dwellings, with the office for the geological staff between general office and the homes. The warehouses and garage are north of the general office, and west of this office is located the central bunk house or dormitory for the single men, with a community boarding house next to this building.

Roads to the camp have been graded, graveled and are oiled, and through the camp similar roads have been constructed as well as roads to the main leases so that all-weather transportation of men and material is possible. Concrete sidewalks have been built from dwellings to offices and other buildings in the camp.



Upper left: General field office E. H. Moore, Inc., Wirick Camp, Fitts field, Oklahoma; Upper right: Boarding and bunk houses, Wirick Camp; Lower left and right: Dwelling houses, E. H. Moore, Inc., Wirick Camp.

The dwellings are of modern construction, being built of wood and finished on the inside with sheet rock wall board. Each home is 24x36 feet outside dimensions and contains five rooms. This size building is larger than the usual five-room lease house. The buildings are erected upon concrete foundations and are painted white with green roof and trim harmonizing with the shade trees surrounding them.

Each house is enclosed by a neat picket fence in front with woven wire fence in rear. These yards open out in front onto a central parking planted in grass and dotted with flower gardens and shrubs. This lawn serves as a playground for the younger children as well as adding much to the general landscaping scheme of the camp.

All houses are wired for electricity, which is secured from the natural gasoline plant generator station of the Carter Oil Co. in this field. Running water is furnished and this is secured from the big spring in the Arbuckle Mountains to the west, the same source of supply as used by the city of Ada. This is excellent spring water and there is an abundant supply available at all times.

A complete sewerage system has been installed serving all buildings in the camp. Two septic

Panorama of E. H. Moore, Inc., Wirick lease and central cam

tanks, one to the east and the other to the west of the camp, handle sewerage so that no untreated material is dumped into streams of the region.

Each house has been provided with a modern refrigerator of the gas-operated type, and natural gas is provided for fuel for cook stoves, while the heating is accomplished through the use of gas-fired floor furnaces. Gas is also used for lighting the grounds as residue gas from gasoline plant and tanks is burned in open flambeaux placed at advantageous points around the camp site.

For heating water a thermostatically controlled gas heater is installed in each bathroom as well as in the boarding and bunk houses.

For the single men the company has provided a 50-bed dormitory with many individual sleeping rooms, a reading room and general bathroom. This is primarily a sleeping quarters but a rest and recreation room is provided for the men to use when off duty.

Next to the bunk house there is a modernly equipped boarding house where about 250 meals are served each noonday of the week. This building is provided with a well appointed kitchen with modern range and cooking utensils. The food is ample and varied and served to the men on long tables in the dining hall. Benches are provided for seats at these tables and the food is placed on the tables in family style, everyone helping himself and choosing what he wants and how much from the variety of food furnished.

The menu is constantly varied and fresh vegetables and fruit served in season. Fresh meats are always available. A well-balanced meal can be selected at any time, and in keeping with all major companies, E. H. Moore, Inc., insist that the men be satisfied with their food at all times, as it has been found they work better when well fed.

Across the camp site high-pressure water lines have been laid taking water from Sheep Creek, where a high-pressure pump station has been installed to provide water for drilling and producing wells. Hydrants have been installed at strategic places around the grounds and a small hose cart, handled by the volunteer fire department on the lease with high-pressure chemical fire extinguishers, makes for high degree of fire-fighting apparatus and provides equipment suitable for fighting any fire that may start on this property.

For recreation the company has laid out a good baseball ground, with tennis courts for those who prefer that game and a site in the grove for horseshoe pitching for the "barnyard golfers." For the children other playgrounds are provided. A good swimming pool is located at Lea's, about 3 miles from the camp and reached by good roads.

A baseball team representing the Moore organization plays in a league made up of teams representing other oil companies in the Fitts field. Games are played each Sunday afternoon during the summer, with a fall tournament staged for the winning teams of each field.

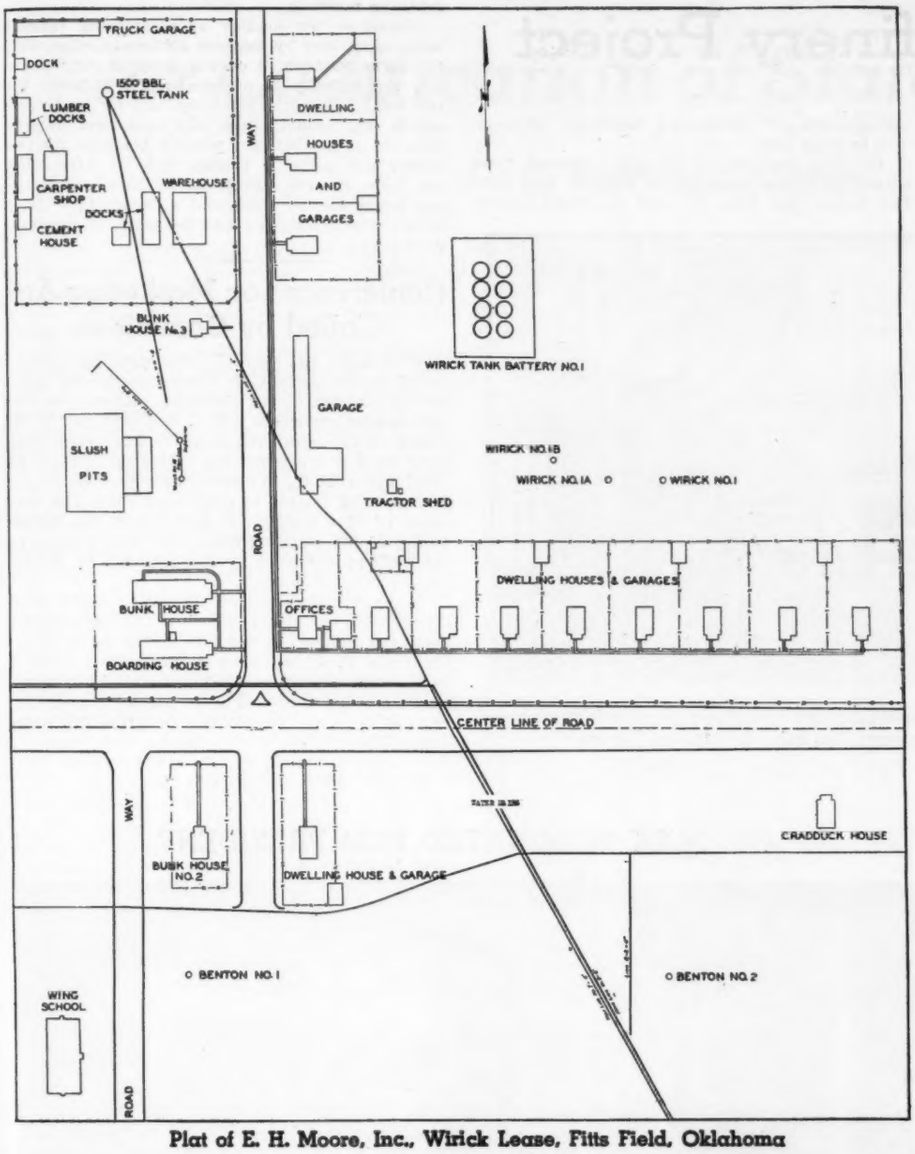
Within the past year the county has built a district school near the Moore camp to which all children go up to the eighth grade. For advanced students, high school and college are available in Ada, 15 miles away and about 30 minutes ride over good roads.

A community church has also been recently completed on the lease and services are held regularly Sunday with an occasional prayer meeting during the week. Sunday school is conducted there for the children so that no phase of urban life is missing in this community unless it is a movie theater, and when the family desires to see a show the drive to town does not takes much longer than a drive to the downtown theaters in the average size city.

While this Wirick camp is outstanding in its layout and equipment, all other companies operating in this and other oil fields provide good modern houses for their men in most instances. Some companies do not erect permanent camps on their leases, in which case they will provide building space for the erection of privately owned dwellings by the employes. Under such circumstances the men either erect ready-cut buildings they can later remove or build the ordinary type lease house constructed of cheaper materials.

Nearly every operator in the Fitts field has provided housing facilities for the employes. Where the companies' activities are relatively small no central camp may be established and supervision and materials secured from other nearby field warehouses.

Most companies build central camps, some providing community halls and hospitals while others rely upon local amusement places and hospitals. These conditions are regulated largely by distance from field to town.



Plat of E. H. Moore, Inc., Wirick Lease, Fitts Field, Oklahoma

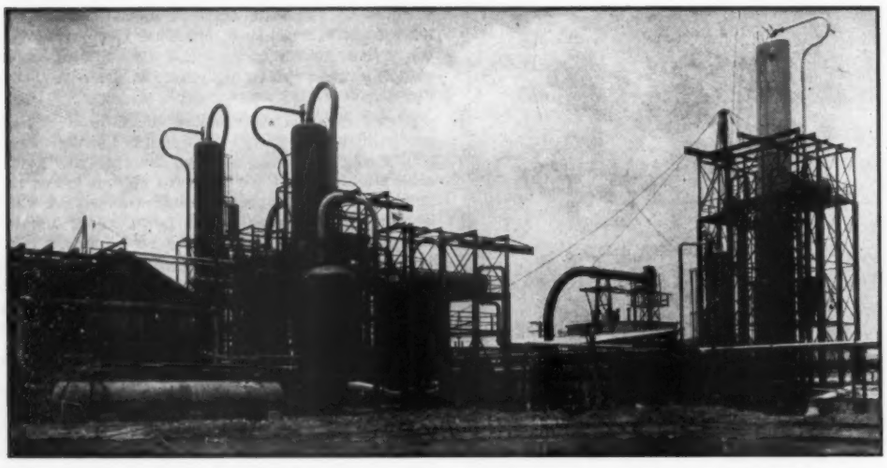
...e in section 29-2-7, Fitts field, Pontotoc County, Oklahoma, looking north

Eastern States Completes New Gulf Coast Refinery Project

HOUSTON, Tex., June 15.—The latest Dubbs cracking installation on the Gulf Coast was placed on stream recently at the Houston refinery of Eastern States Petroleum Co., Inc. The new unit combines skimming, cracking and reforming and manufacture of commercial naphthas, kerosene, and burning oils.

Crude is supplied to the plant through three major pipe lines, operated by Humble Pipe Line Co., Texas Pipe Line Co. and American Liberty Oil Co. The largest percentage of refined products leaves the refinery by tanker for shipment to foreign and East Coast markets. Local wholesalers absorb a small share of the output, and some shipments of kerosene are made by tankcar to northern markets.

Facilities for loading of ocean-going tankers were taken over by the new owners together with the refinery. Located on the Houston Ship Channel, the refinery is advantageously situated for the water shipments which account for its largest outlet. The loading dock and equipment located adjacent to the refinery provide berthage for one tanker and allow a loading rate of 3,000 bbls. per hour. Present storage at refinery and terminal totals 450,000 bbls., and a larger tank farm is included in future expansion plans of the company.



General view of new combination skimming, cracking and reforming plant recently placed in operation by Eastern States Petroleum Co., Inc., at Houston, Texas

is capable of handling 10,000 bbls. of crude charge per day.

Completion of this unit marks a major step in a program of improvements which Eastern States Petroleum Co. has undertaken since purchasing the plant from Deep Water Oil Refineries, Inc. After leasing and operating the refinery for several months, the company exercised a purchase option in December, 1935, buying the plant and beginning immediate improvements. The refinery when operated by Deep Water manufactured lubricating oils. In the modernization program considerable quantities of obsolete equipment were dismantled and moved, clearing the site for the new Dubbs unit.

The installation of the Dubbs unit was completed late last month. Construction was carried out in the remarkably short period of three months. Allen M. Piears was in charge of construction.

The furnace incorporated in the unit provides for selective cracking in two heating coils. Each coil in the furnace consists of two sections, divided by a fire wall. Burners line the bases of these walls on each side, and coils in the radiant sections are installed on the sides and roof. Flue gases from the two units pass the convection banks and enter the stack through a common duct.

Conventional Dubbs features are embodied in the design of this new plant. The crude is first topped in a fractionator, the overhead fraction passing in parallel through the two sections of the reforming unit. The topped crude also divides into two streams in the cracking unit, and all four streams join in the reaction chamber. The flash chamber next in line is followed by the main fractionator. Vapors overhead from this tower are condensed and held in a reflux tank prior to treating. This allows for refluxing of untreated gasoline to the fractionator. A polymer tower and vapor recovery system, the latter incorporating absorber and rectification tower in the same column, complete the unit. A new continuous sweetening plant for gasoline was also recently completed at the refinery.

In processing a mixture of crudes from Gulf Coast, Southwest Texas and East Texas, a 68 per cent yield of 69 octane gasoline with an end-point of 385° F. is obtained. The other principal product of the refinery is fuel oil. Equipment is also available at the remodeled refinery for the

Conferences on Marketing Are Called by Committee

CHICAGO, Ill., June 15.—The standing committee of the Industrial Code Conference for the Marketing Division of the petroleum industry in the middle west announces that C. E. Arnott and W. R. Schuh of the national committee have completed their work and are meeting with Paul Hadlick at Washington, D. C., to ascertain the position of the jobbers with respect to a national code. The outcome of this conference will guide the future action of the standing committee with respect to the code promulgated by the industry in Middle Western United States.

The national committee desires to confer with the members and alternates of the standing committee at the earliest possible date to finalize its plans. Chairman P. J. Schroeder is therefore issuing a call to each committee member and alternate to attend a meeting to be held in the Palmer House, Chicago, at 10:00 a.m. eastern standard time, Tuesday, June 23.

OIL MAN NOMINATED FOR PRESIDENT

Gov. Alfred M. Landon of Kansas, Republican candidate for president of the United States, has lived in the oil country all his life. His father, John Landon, was an oil and gas producer in the Eastern fields and the son spent the first 16 years of his life in Marietta, Ohio. The family moved to Kansas in 1902 and Alfred Landon started his practical experience in the oil business by working on the Gulf Pipe Line Co.'s construction job from the Glenn pool in Oklahoma to Texas. Later, he entered the production business on his own account and was very active in the early development of the Osage Nation in Oklahoma and in Montgomery County, Kansas. Subsequently, he drilled and produced oil in Greenwood and Elk Counties in Kansas. He owns production in all of the counties named. Governor Landon's home is in Independence.

Louisiana Constitutional Amendment for Codification of State Oil Laws

By MITCHELL TUCKER

SHREVEPORT, La., June 15.—A complete codification of the oil, gas and mineral laws of Louisiana seems probable as the result of a joint resolution now before the present session of the Louisiana legislature.

This resolution, contained in Senate Bill No. 176, proposes a constitutional amendment for this purpose, and will be submitted to the people in the general election in the fall of 1936.

The directorial clause of the proposed amendment is as follows:

"It shall be the duty of the governor to appoint a commission to prepare a draft of a code to be known as 'A Code of the Oil, Gas and Mineral Laws of the State of Louisiana,' which code shall codify all the laws of this state relative to the private ownership, leasing, selling, mortgaging or otherwise dealing in oil, gas and other minerals, and rights relating thereto or connected therewith."

The resolution further provides that the draft of such a code shall be prepared and submitted to the governor on or before January 1, 1938, and he in turn submit it to the regular session of the legislature in 1938 for enactment.

House Bill No. 465, introduced by Burke, Morvant and Stich is before the present session. Hearings are being held this week at which representatives of the oil industry are present.

The bill as introduced late May 31 was described as an act to conserve oil, gas, sulfur, salt and other mineral resources of the state of Louisiana and provided for the enactment of a law to prevent waste and depletion of mineral resources. One clause, relating to crude oil, described "reasonable market demand," another covered "common source of supply." The act as introduced also empowered the Commissioner of Conservation to inquire into and fix the reasonable market demand and determine allowable production from common sources of supply without waste. The Conservation Commissioner was also empowered to allocate or apportion the allowable production among the various sources of supply of crude oil or gas without discrimination among the several sources of supply.

As placed before the legislature this act delegated authority to the Commissioner of Conservation to define and prevent underground and surface waste; to fix spacing of wells; to prevent the drilling of more wells than are reasonably necessary to drain oil and gas from any common source of supply and permitting the pooling of properties for drilling. It is understood some changes have been made in the act after hearings at Baton Rouge. How they will affect the provisions contained in the bill as introduced is not known as the hearings are still being held.

Townsite Alley Drilling

Dense spacing of wells in the southwest quarter of section 23, Caddo Parish, appears inevitable, following the recent leasing of streets and alleys for immediate drilling within the townsite of Rodessa. All lots are now leased.

The town of Rodessa was laid out about 35 years ago by Arkansas Improvement Co., sometimes known as Arkansas Townsite Co., and individual lots sold. Rodessa has remained an unincorporated town, and consequently the streets and alleys have never been dedicated to public use, and title remains in the original owners.

Four separate instruments have been recorded recently in Caddo Parish conveying the oil and gas rights from Arkansas Improvement Co. to Chas. F. York of Dallas in various piecements of land now used for streets and alleys at Rodessa, in the southwest quarter of section 23-23-16.

Several producing wells and three new locations are now within the town limits, and offsets in the thoroughfares appear probable unless the present street leases are obtained by the lessees of town lot properties.

The town of Rodessa continues into the south half of the northwest quarter of section 23, but the streets and alleys together with all lots are controlled by two major operators in the area, so such dense spacing of wells is not expected in this 80-acre tract to the north.

Showing locations in streets andalleys in Rodessa townsite

(Copyright, Walter E. Wylie, Oil Maps, Shreveport, La.)

Pipe Line Activity

Southern Pipe Line to Shut Down

Allan Towle, president of Southern Pipe Line Co., has sent the following notice to employes of the company: "You have probably noticed that the amount of oil being transported has declined during the past few years, and that the pump stations have been shut down for days at a time. Recently we have received notice from the two companies whose oil we are now transporting that, in the near future, they will discontinue all shipments of oil over the lines of this company. When this occurs, we will have no business in sight, and it will necessitate laying off most of our employes about August 1, 1936."

Mr. Towle stated the main reason for lack of business lay in the fact that the company had no field business, and formed only a part of a trunk line.

The line has been delivering approximately 3,500 bbls. daily of West Virginia crude to two customers on the Atlantic Seaboard. Pure has been taking 1,000 bbls. daily at its Marcus Hook refinery and Standard of New Jersey 2,500 bbls. daily at Bayonne, N. J. The oil is delivered by Southern to National at some point in Eastern Pennsylvania (see our large map) and then delivered by that company to these two buyers. It is understood Pure will continue to purchase the 1,000 bbls. daily delivering the crude at its Cabin Creek, Pa., refinery. So far as known Standard of New Jersey will discontinue its purchases and this will leave 2,500 bbls. daily to find a new market.

Losses in outlets for West Virginia's Pennsylvania grade crude oil and increased use of water transportation are seen today by observers to be threatening continued operation of several important pipe line systems in West Virginia and Pennsylvania, the Oil City Derrick says.

Those who have studied the Pennsylvania grade region's crude market situation point out that a large part of West Virginia's crude markets have gone to Bradford in recent months. If West Virginia's losses are anything near the figures indicated, it is possible the Eureka system may be affected.

This critical situation for West Virginia producers closely parallels that of the Allegany field producers in New York a few years ago. When it became apparent that the Allegany producers would lose their outlets, these producers organized their own pipe line system and built a modern refinery at Bolivar, N. Y. This move undoubtedly not only averted disaster, but brought splendid financial returns.

There is a good possibility that one of the large refiners will find in the present West Virginia pipe line situation an opportunity to enter the Pennsylvania grade picture. Several majors are known to be interested in purchasing a suitably located refinery processing Pennsylvania grade crude oil. If one of these can acquire a pipe line which is capable of receiving fairly large tenders of Pennsylvania grade oil, there is little doubt that a refinery to process the oil would be built. It is possible, too, that a pipe line such as the Southern would provide an opportunity to avoid considerable right-of-way trouble to refiners seeking movement of crude or refined products from the eastern seaboard west, or vice versa.

Another interesting note in the pipe line setup in Pennsylvania is the recent purchase by National Transit of the 260-mile trunk line and gathering system of Ultra Penn Refining Co. of Bruin, covering a large part of Butler County, Pennsylvania.

Texas-Empire Contracts

Contractors are at work on the $4,500,000 expansion program the Texas-Empire Pipe Line Co. is pushing with nine loops along its trunk line from Sheldon, Mo., to Heyworth, Ill., and also a 143-mile extension westward from Sheldon, Mo., to Valley Center, Kans.

Oklahoma Contracting Co. of Dallas, Tex., is to lay around 60 miles of the extension line, and Truman-Smith Construction Co., of El Dorado is to build the extreme east and extreme west link. It also got loops 6 and 7.

Texas-Empire Pipe Line Co. is to provide the pipe and fittings.

Kelly-Dempsey & Co. of Tulsa is to lay loop 1; Jones and Brooks, Inc., of Oklahoma City, loops 2 and 3; Williams Brothers Construction Co., loops 4, 5, 8 and 9.

Augusta-Kansas City Line

NEW YORK, June 15. — Socony-Vacuum Oil, Inc., has accepted bids for supplying material and construction work on its projected 178-mile 6-inch gasoline pipe line from Augusta, Kans., to Kansas City, Mo., but no award has been announced.

Lake Charles Line

LAKE CHARLES, La., June 15.—Union Sulphur Co. has completed laying a 6-inch welded line from the Gillis field, north of Lake Charles, to its Sulphur tank farm, a distance of about 20 miles. The line was laid under contract by Apex Construction Co. It is the second pipe line outlet for the field.

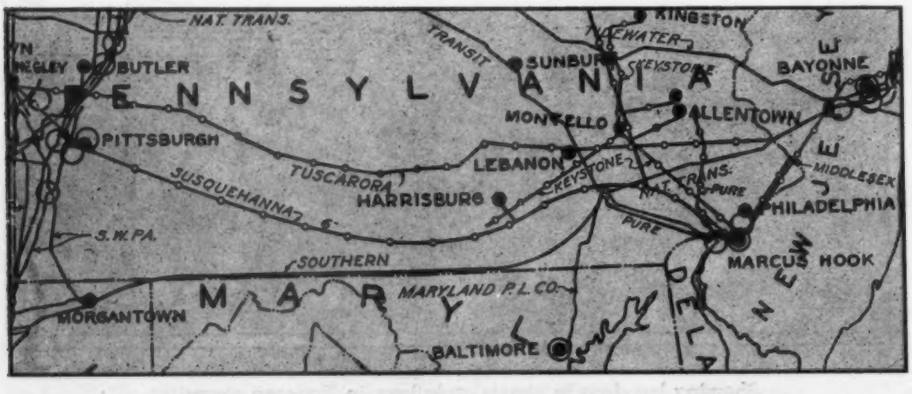
Panhandle Eastern Extension

PITTSBURGH, Pa., June 15.—Production and shipment of 44,000 tons of gas pipe line tubular goods to be laid between Dana, Ill., and Detroit has been completed by National Tube Co., Pittsburgh, Pa. Completion of the gas line extension to the Panhandle Eastern Pipe Line Co. system to serve Detroit is projected for August.

Shell Union Contracts

PITTSBURGH, Pa., June 15. — Contract for approximately 25,000 tons of seamless and electric weld pipe for Shell Union Oil Corp. new California pipe line has been let to five Pittsburgh, Pa., manufacturers. The line will extend from Bakersfield to Martinez, Calif. (San Francisco Bay).

The seamless order for approximately 18,000 tons was divided between Spang, Chalfant & Co., Inc., National Tube Co., and Jones & Laughlin Steel Corp., all of Pittsburgh. About 7,000 tons of electric weld steel pipe will be supplied on the Shell contract by Republic Steel Corp., and A. O. Smith Corp.



Map of Southern Pipe Line from Morgantown, W. Va., to Millway, Pa.

Refinery Projects

Big West to Expand

CHICAGO, June 13. — The Big West Oil Co. of Montana is enlarging its crude charging capacity and its Dubbs cracking capacity at Kevin, Mont. The contract for the work has been let to the Ralph M. Parsons Co. of Chicago, designer and builder of the refinery, which went into operation in January, 1934.

The present refinery consists of a combination crude and reforming furnace with fractionating tower and auxiliaries, a Dubbs single-coil cracking unit with absorber and stabilizer, and a treating system and rerun unit.

When the plans for the refinery were being formulated, more than two years ago, the probability of future additions was foreseen and they were allowed for. The new equipment is being installed in the locations provided for in the original plans.

The most important feature of the new work is the conversion of the Dubbs unit from single coil to two-coil selective cracking operation.

This necessitates the building of a light-oil cracking furnace, the installation of an additional hot-oil pump and a high-pressure pump for charging straightrun gasoline to the furnace.

The pump house will be extended in line with the original plans to accommodate the new pumps, while the additional control instruments will be installed on panels which were put in for that purpose when the control house was built.

A double-cell furnace for treating and redistilling for cracked gasoline will be constructed, and condenser capacity will be enlarged.

The combination unit as now operating runs 20 days a month distilling crude oil, and 10 days reforming straightrun gasoline.

Recently the heavy demand for more crude throughput has cut down the reforming time and, consequently, stocks of straightrun gasoline have accumulated.

The new work when completed will free the combination unit for crude service entirely and increase the daily crude capacity from 650 bbls. to 1,000 bbls. a day. The light fractions will be continuously charged to the light oil furnace as a part of the cracking operation.

By converting to two-coil operation, the capacity of the cracking unit will be increased from the present 500 bbls. a day to 750 bbls. a day, and the octane number of the cracked gasoline, which is now 69-70, will be considerably increased.

Kilgore Refinery Leased

KILGORE, Tex., June 13.—Kilgore Refining Co., operator of a 4,000-bbl. skimming plant in the west part of Kilgore, is reported to have leased its plant to Royal Oil & Refining Co. of Houston, Tex. J. D. Wrather of Kilgore is owner of the plant, at present shut down. The consideration involved was sliding, from $3,500 the first month to $5,000 the fourth and each month thereafter for one year.

Quaker State Offers Issue

OIL CITY, Pa., June 13.—Quaker State Oil Refining Corp. has filed a registration statement with the Securities and Exchange Commission for the purpose of registering 85,000 shares of common capital stock, par value $10. Of the shares to be offered the public, 25,000 will be from unissued, authorized shares. Proceeds from the sale will be used in part to defray cost of improvements which the company is making at its McKean, Pa., plant.

The total cost of the improvements is expected to exceed $550,000. They consist of erection of a

solvent dewaxing plant, employing the methyl-ethyl ketone and benzol extraction process, new boiler house and equipment and new electrical generating equipment. The balance of the cost of the improvements over that gained in the sale of the 25,000 shares, will be defrayed from current funds.

Start Operating

Production of gasoline from Michigan crude has been started in the new refinery of the Interlakes Refining Corp. at Trenton, near Detroit, Mich. James Pokorney is superintendent of the plant designed to handle 1,000 bbls. of crude daily with a vapor-phase cracking unit. Mr. Pokorney formerly was assistant superintendent of the Standard Oil Co. of New York.

National to Enlarge Warehouse

MEMPHIS, Tenn., June 13.—National Refining Co. will increase the storage facilities of its Memphis branch plant in the near future by the erection of a $15,000 warehouse and office building. Also seven 20,000-gallon gasoline storage tanks are to be erected. Lester Larimer, Jr., is the company's Memphis manager.

Natural Gas

Enjoin Mississippi Law

NEW ORLEANS, La., June 15.—A three-judge federal court granted two Jackson, Miss., gas companies an interlocutory injunction restraining the state of Mississippi from enforcing its oil and gas proration law.

Jackson Oil & Gas Co. and Love Petroleum Co., based their plea for injunction in an attack on constitutionality of the measure, asserting it violates their constitutional rights in that they had a contract to supply a large amount of gas used by the city of Jackson.

The act restricts the amount of gas which may be taken from wells within the state.

Gas Revenues

Revenues of natural gas utilities in the first quarter this year totaled $132,629,400, against $112,998,200 a year ago, an increase of 17.4 per cent, the American Gas Association reports.

After setting new high monthly records in January and February, revenues fell off in March, which, however, brought in higher revenues than for March of any previous year. From the record high of $48,116,400 in February, revenues declined to $39,320,000 in March, which was an increase of 12.2 per cent over March, 1935. Sales of natural gas in March totaled 113,823,300,000 feet, an increase of 16.7 per cent over a year ago.

Gas Dilution Decision

DALLAS, Tex., June 15.—Federal Judge Atwell denied a petition of Lone Star Gas Co. asking that an injunction restraining enforcement of Fort Worth's "antigas dilution" ordinance be made permanent. The ruling set aside a temporary injunction granted some time ago by Federal Judge Wilson in Fort Worth.

The Fort Worth ordinance prohibits the distribution of gas within the city containing any of the elements of air. It was passed by the city after a long fight over the Joshua plant of the Lone Star company, where gases from different fields are stabilized in heat content by the introduction of nitrogen.

Gas company attorneys gave notice of appeal and said the fight against the ordinance would be carried to the highest courts.

Dallas considered a similar ordinance last year but its passage was held up pending decision on the Fort Worth case.

Gas company witnesses in the case claimed natural gas coming from several different fields had to be stabilized in order that appliances would perform in uniform fashion at all times. They said customers realized savings through operation of the Joshua plant.

Natural Gasoline

Bureau of Mines April Report

The daily average production of natural gasoline in the United States declined slightly in April according to the monthly report prepared by the Bureau of Mines. The average in April was 4,571,000 gallons as compared with 4,577,000 gallons in March. Daily average production in Oklahoma and California remained virtually unchanged but that in Texas declined; 1,273,000 gallons daily in April as compared with 1,304,000 gallons daily in March. Production in the Texas Panhandle averaged 498,500 gallons daily compared with an average of 558,600 gallons in March. In the Oklahoma City field total production for April was 10,049,000 gallons as compared with 11,227,000 gallons in March. Increased production in Louisiana and Kansas, two states with considerable flush crude oil production, was instrumental in preventing a larger decline in the national total.

Total production for the first four months of 1936 was 556,664,000 gallons as compared with 525,997,000 gallons in a like period of 1935. The daily average production in the first third of 1936 totaled 4,683,000 gallons whereas in the like period of 1935 the daily average was 4,388,000 gallons, an increase of approximately 7 per cent.

The total production in gallons during April by districts was as follows: Appalachian, 6,125,000; Illinois, Michigan and Kentucky, 909,000; Oklahoma, 33,589,000; Kansas, 2,842,000; Texas, 38,212,000; Louisiana, 4,634,000; Arkansas, 1,039,000; Rocky Mountain, 4,591,000; and California, 45,189,000.

Stocks of natural gasoline continued to increase, the gain in April being from 191,226,000 gallons on hand the first of the month to 212,436,000 gallons on April 30. Nearly all the increase was recorded in stocks at plants and terminals, these stocks increasing from 91,224,000 gallons to 110,922,000 gallons. Stocks held at plants and terminals in Texas increased from 54,492,000 to 69,612,000 gallons while Oklahoma plant and terminal stocks increased from 17,944,000 to 21,466,000 gallons. Of the total gasoline stocks held in California, 77,616,000 gallons were in storage at refineries and but 1,810,000 gallons at plants and terminals.

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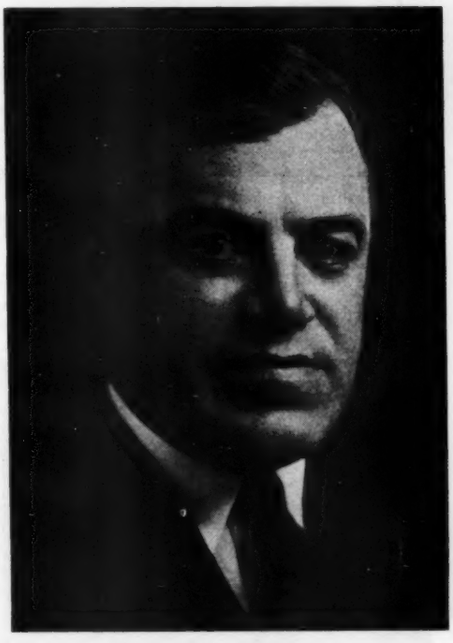
PANHANDLE EASTERN HEAD



J. D. CREVELING

J. D. Creveling has been elected a director and president of Panhandle Eastern Pipe Line Co., effective July 1.

Mr. Creveling was born at Mount Vernon, Ohio. His first work for a natural gas company was in 1904 in the Knox-Licking County fields of Ohio for Logan Natural Gas Co. After graduating he worked for the Logan company and Ohio Fuel Supply Co. in Ohio, Pennsylvania and West Virginia in various engineering and operating capacities in all branches of the industry until 1918 when he became construction engineer for the Empire Companies (Cities Service), with headquarters at Bartlesville, Okla. On July 1, 1919, he was moved to the New York office of Cities Service Co. as head of the natural gas and natural gasoline department, which he held until his resignation to assume his new duties.

He was president of the Natural Gas Association of America in 1923 and is a member of the executive committee of the American Gas Association and of the advisory board of the U. S. Bureau of Mines representing the natural gas industry.

New Rodessa Plant

Construction was begun this week on Rodessa Gasoline Co.'s new 30,000,000-foot capacity extraction gasoline plant, which is to be located at the extreme eastern edge of the Rodessa field, 2 miles west of Ida, La.

Herbert E. Dickard & Co. of Monroe, La., are the construction and designing engineers of this plant, which is to cost approximately $120,000.

Magnolia to Repressure

DALLAS, Tex., June 15.—Magnolia Petroleum Co. is preparing to repressure a block of some 2,000 acres in the Burkburnett area in Wichita County, North Texas, and has already laid lines to carry on the work. Gas used will be taken from the company's natural gasoline plant. Some input wells are to be drilled for introducing the gas back into the oil-producing formations.

Glen Rose Plant Started

The Glen Rose Gasoline Co. of Shreveport, La., has begun the construction of their 15,000,000 capacity absorption gasoline plant at Rodessa. This plant is situated on Perkins and Marr's Hunter lease, just one-quarter of a mile due east of the Pelican Oil & Gasoline Co.'s 50,000,000 capacity plant in section 13-23-16.

Petroleum Engineering, Inc., of Tulsa, has been awarded the contract for the design and construction of this plant, on a turn-key basis. Materials are being moved in rapidly, and the completion of the plant will be rushed all possible.

New Magnolia Plant

DALLAS, Tex., June 12.—Magnolia Petroleum Co. has crews clearing location for a natural gasoline plant in section 1, Block 27, on its W. W. Walton lease, about 3 miles north of Kermit in Winkler County, and is seeking gas contracts in the Scarborough, Sayre and Brown and Altman (Kermit) areas for sufficient gas to process. Size of the plant has not yet been decided as it is contingent upon the amount of gas contracted. Most of the equipment to be placed in the plant will be new.

Clymore Company Not Sold

HOUSTON, Tex., June 15.—An erroneous report that Clymore Co., Inc., had been purchased by United Gas Co. apparently originated from control of Nueces Refining Co. and Clymore Production Co. passing to United through purchase a week ago. Garland Clymore, head of Clymore Co., Inc., has stated no negotiations are pending for sale of that company or his other properties, including Manhattan Gasoline Co., Osage Drilling Co. and Refugio refinery. The two properties acquired by United are in the Agua Dulce area of Gulf Coast Texas.

Refineries of Jersey Company As Listed for Registration

The oil refinery of the Standard Oil Co. of New Jersey subsidiary, Lago Oil & Transport Co., at Aruba, Dutch West Indies, is now by far the largest controlled by the Jersey organization. This is indicated by a list of the principal plants of the company throughout the world contained in the registration statement filed in connection with the issuance of $85,000,000 Jersey company debentures. In addition to giving the list of refineries, the report shows actual crude oil runs for 1935 and 1934.

The list of oil refineries operated by Standard Oil Co. of New Jersey and subsidiaries, with actual crude runs in 1934 and 1935, is as follows:

Location—	Subsidiary	Daily crude runs (bbls.) 1934	1935	Principal source of crude	Principal products
Everett, Mass.	Colonial Beacon Oil	19,700	17,400	Texas, Venezuela	Gasoline and fuel oils
Bayonne, N. J.	Standard Oil of N. J.	36,900	28,000	Texas, Oklahoma, Pennsylvania, Mexico, Venezuela, Colombia	Complete line
Linden, N. J.	Standard Oil of N. J.	53,200	46,600		
Jersey City, N. J.	Standard Oil of N. J.	4,100	3,900		
Baltimore, Md.	Standard Oil of N. J.	23,000	23,500		
Baton Rouge, La.	Standard Oil of La.	84,400	81,800	Texas, Louisiana, Arkansas, Oklahoma, Mexico, Venezuela	Complete line
Baytown, Tex.	Humble Oil & Refining	86,200	101,200	Texas, New Mexico, Colombia	Petroleum products, incl. asphalt, waxes and greases
Ingleside, Tex.	Humble Oil & Refining	8,900	7,300	Texas, Colombia	Gasoline and fuel oils
Halifax, Nova Scotia	Imperial Oil	8,800	9,300	United States, Peru, Colombia, Venezuela, Canada	Complete line of petroleum products
Montreal, Quebec	Imperial Oil	12,400	13,000		
Sarnia, Ontario	Imperial Oil	17,000	15,100		
Ioco, British Columbia	Imperial Oil	9,200	9,500		
Fawley, Hants, England	Agwi Petroleum	9,600	9,300	Venezuela, Peru	Gasoline, fuel oils, asphalt
Port Jerome, France	St. Franco-Americaine	16,400	23,500	Colombia, Peru	Complete line
Teleajen, Rumania	Romana-Americana	18,700	19,700	Rumania	Complete line
Aruba, Du. West Indies	Lago Oil & Transport	138,100	162,900	Venezuela, Colombia	Gasoline and fuel oils
Tampico, Mexico	Huasteca Petroleum	16,800	8,400	Mexico	Gasoline and fuel oils
Talara, Peru	International	16,700	16,700	Peru	Petroleum products, excluding wax, grease, asphalt
Campana, Argentina	Cia. Nativa	6,600	8,100	Argentina, Venezuela, Colombia, Peru	Complete line

Smaller and relatively less important refineries of subsidiaries are located at Charleston, S. C.; San Antonio and Neches, Tex.; Regina, Saskatchewan; Calgary and Coutts, Alberta; Vancouver, British Columbia; Vallo, Norway; Libuza, Poland; Trieste, Italy; Harburg, Germany; Terdonck-Antwerp, Belgium; Havana, Cuba; La Salina, Maracaibo and Caripito, Venezuela; La Brea, Trinidad; Barranca-Bermeja, Colombia; Yacuiba and Camiri, Bolivia; Bahia Blanca, Embarcacion and Plaza Huincul, Argentina.

The Humble company, the report states, is constructing a large polymerization plant at Baytown.

Cracking operations are performed at all of the larger refineries, the report states, and at some of the smaller plants. The cracking equipment used varies in design. Certain domestic subsidiaries of the company have lately become interested in the production of gasoline by the polymerization method by which refinery fuel gas is converted into gasoline of high-octane quality. Several smaller plants of this nature have been erected and a large plant is in the course of construction at the Baytown refinery.

Of the crude oil run by domestic refineries in 1935, approximately 90 per cent was from domestic production or purchases of domestic oil.

Phillips Installs Four Large Polymerization Units

BARTLESVILLE, Okla., June 15.—The largest expansion program yet to be announced in the field of gas polymerization is represented in the release by Phillips Petroleum Co. of the details of four new units to be located at Borger, Tex., and Kansas City, bringing their total polymerized gasoline capacity up to 4,500 bbls. per day. In a broader sense, the expansion represents definite progress toward more profitable utilization of natural gas and may indicate the increased degree to which high antiknock motor fuels will be derived from this source in the future.

The program includes the construction of four new units having an aggregate capacity of 3,500 bbls. of polymerized gasoline per day. Three of these will be at Borger, Tex., having capacities of 1,000 bbls. per day each, bringing the total polymerized gasoline capacity there up to 4,000 bbls. daily. One of the three has been completed and is now in operation. The fourth unit, which will be at Kansas City, is almost completed, and will have a polymerized gasoline capacity of 500 bbls. per day. Gasoline produced will have a blending value of 85 octane number and above.

While the Kansas City installation will serve mainly for the polymerization of refinery gases, the new units at Borger will be used almost exclusively for the polymerization of natural gas. The process which will be used is that known as thermal polymerization, which Phillips Petroleum Co. has been active in developing and which is licensed by the Polymerization Process Corp. It is adapted to handling the saturated hydrocarbons which make up natural gas as well as the unsaturates occurring in gas from cracking units, thus making it broadly suited to operating requirements.

OBITUARY

CLAYTON G. DORN, of Bradford, Pa., treasurer and one of the organizers of Forest Oil Corp., died June 9 at Rochester, Minn., where he had gone for medical treatment. He was the father of Forest Dorn, president of Forest Oil Corp., and brother of Cal Dorn of Denver, Colo.

DR. FRANKLIN E. KNOCH, a pioneer oil man of Florence, Colo., died June 7 of a heart attack on a train near New Kensington, Pa. He was for many years superintendent of United Oil Co.'s refinery at Florence and when that company was taken over by Continental Oil Co., continued as an executive until he retired on a pension eight years ago. He was at Florence for more than a quarter of a century. He is survived by his wife and a daughter, Mrs. Fred Hutton, of Casper, Wyo., whose husband is superintendent of the White Eagle plant at that place.

CALVIN JACKSON HOBSON, 49, oil operator, died June 3 at Oklahoma City. He was president of Hobsco Petroleum Corp. and formerly president of Coastal Sales Co. of Gulf Refining Co.

GUSTAV HERZ, 90, died in Portland, Ore., on May 31. He was a member of the Bradford, Pa., Oil Exchange in its busiest years, and was also connected with the oil producing firm of Stettheimer & Bettman, operators in Pennsylvania.

MRS. CAROLIN McCOLLUM LEONARD, wife of John W. Leonard, internationally known oil man of Washington, Pa., died May 19. Surviving are her husband and three sons; F. D. Leonard of Pittsburgh, Pa.; J. D. Leonard and J. W. Leonard, Jr., of Mount Pleasant, Mich.

ORGANIZATION CHANGES IN NATIONAL SUPPLY CO.

P. J. SHOUVLIN

At the last meeting of the board of directors of The National Supply Co. of Delaware, P. J. Shouvlin was elected chairman of the board to fill the vacancy occasioned by the death of J. H. Barr.

JOHN A. GEISMAR

J. A. Geismar, vice president and general manager of The National Supply Co., succeeds Mr. Shouvlin to the presidency of The National-Superior Co., the manufacturing subsidiary of The National Supply Co.

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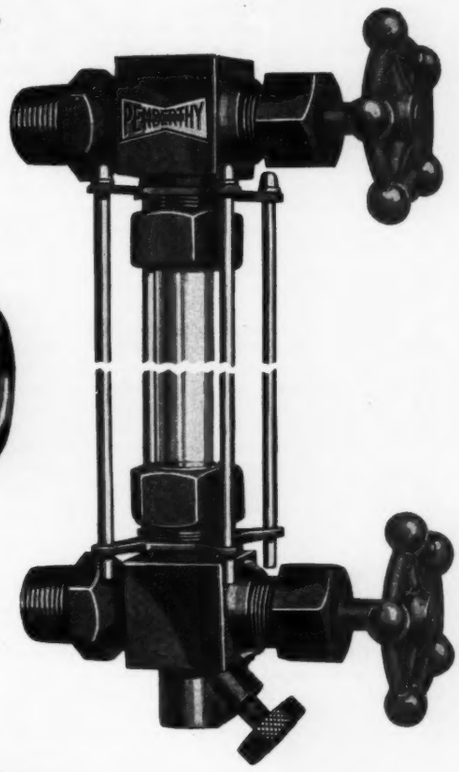

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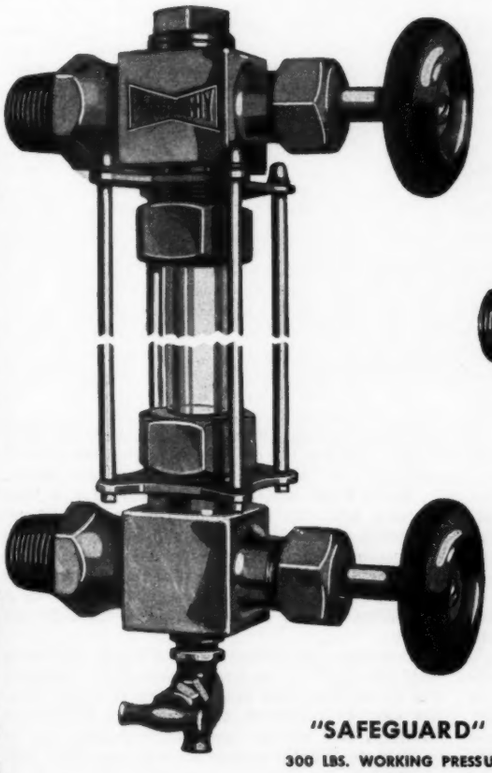

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Oil News from Foreign Lands

Sir John Cadman's View

Sir John Cadman, chairman of Anglo-Iranian Oil Co., Ltd., stated at the annual meeting the company's production of crude during 1935 amounted to 7,500,000 tons and its share of Iraq Petroleum Co.'s production for the year amounted to approximately 1,000,000 tons.

New wells and additions to field plants increased the offtake from the Haft Kel field to over 40 per cent of the total Southern Iranian production. Further search for new fields is continuing in Iran, Iraq, Kuwait and in Great Britain. The first well in England was started on March 30, and a second will be started in the near future in an effort to determine whether oil does exist in England in commercial quantities. Twelve new motor tankers, costing £2,000,000 are being constructed for delivery within the next 12 months to replace older vessels.

ANGLO-IRANIAN

With respect to the future, Sir John pointed out that while consumption in the United States reached record proportions, crude output was also at a record, and while he did not envisage any critical developments but rather steady improvement, stability in the United States depended upon voluntary agreements which were all subject to change. With increasing world consumption, the company by reason of its oil reserves, equipment and financial position was able to make the best of future trading conditions, the chairman declared.

Suez Canal Oil Traffic

Northbound oil traffic through the Suez Canal in March amounted to approximately 2,121,000 bbls., daily average of 68,419 bbls. In February the traffic amounted to 1,495,000 bbls., or 54,106 bbls. daily and in March, 1935, it totaled 2,065,000 bbls., or 66,612 bbls. daily. Crude oil in March of this year represented a much smaller part of the total traffic than in February or March, 1935, while gasoline represented a much larger proportion. The crude oil shipments northbound through the canal in March were only 70,000 bbls., against 168,000 bbls. in February and 259,000 bbls. in March of last year. Gasoline shipments, on the other hand, increased to 903,000 bbls., from 532,000 bbls. in February and 672,000 bbls. in March, 1935.

SUEZ

Southbound oil traffic in March, 1936, aggregated 392,000 bbls., compared with 602,000 bbls. in February and 357,000 bbls. in March, 1935. Italy accounted for the greater part of this southbound oil traffic. Rumania, which shipped some oil southward through the canal in March last year, sent none this year.

The following table shows the northbound oil traffic through the Suez Canal for March, 1936, February, 1936, and March, 1935 (figures in approximate barrels):

	March 1936	February 1936	March 1935
Gasoline	903,000	532,000	672,000
Fuel oil	819,000	917,000	749,000
Kerosene	147,000	168,000	168,000
Diesel and gas oil	140,000	189,000	175,000
Crude oil	70,000	168,000	259,000
Miscellaneous	42,000	21,000	42,000
Total	2,121,000	1,495,000	2,065,000

The principal source of the oil moving northbound through the canal is Iran (Persia). Recently some oil has been shipped through the canal from Bahrein Island destined for European refineries.

Gulf Unit Brings $12,500,000

Terms of the transaction whereby Texas Corp. and Socony-Vacuum Oil Co. acquired joint ownership of South American Gulf Corp. are disclosed in a registration statement filed with the SEC in connection with the proposed issue by Texas Corp. of $60,000,000 3½ per cent debentures for refunding purposes. South American Gulf, which was bought from Gulf Oil Corp. for $12,500,000, owns 78,817 shares of the 100,000 shares of Colombian Petroleum Co. Latter holds an interest in the Barco (Colombia) crude oil concession. Under the terms of the purchase of South American Gulf, Texas Corp. turned over $6,500,000 cash to Gulf Oil on May 1, last, and agreed to pay the remaining $6,000,000 in semi-annual installments over eight years, with interest ranging from 1½ per cent to 3½ per cent annually.

COLOMBIA

For its half interest in the acquisition, Socony paid Texas Corp. $4,500,000 cash on May 1, and will pay the remaining $1,750,000 in semi-annual installments over three years with interest ranging from 1½ per cent to 2½ per cent yearly.

Texas Corp. and Socony-Vacuum have a joint contract with the Colombian Government whereby South American Gulf is obligated, if its oil production in Barco concession amounts to 23,000 bbls. per day, to construct a pipe line within three years thereafter from the concession land to a Colombian port, a distance of approximately 240 miles.

Colombian Petroleum Co., or South American Gulf Oil Co., if it prefers, is obligated, if production of oil from such land amounts to 30,000 bbls. per day, to construct a refinery on Colombian territory, and certain specified royalties are to be paid to the Colombian Government. The cost of constructing the pipe line and refinery, it is estimated, will involve an expenditure of $15,000,000 or more.

Netherlands East Indies

Exports of crude oil and refined products from Netherlands East Indies in 1935 showed an increase in volume, according to a report on the economic conditions of the islands by the British Department of Overseas Trade. From January to August, they amounted to 24,746,722 bbls., valued at approximately 57,300,000 guilders. For the full year 1934, exports were 36,084,223 bbls., worth approximately 99,800,000 guilders. Local consumption of oil has been unfavorably affected by heavy motor taxes, and the demand for 1935 was substantially below that for 1934. Since 1931 and for some years, the decrease in road traffic became marked. Little, if any improvement, took place in 1934, but the subsequent rescinding of the motor tax on benzine-driven vehicles in favor of an increased excise tax on gasoline (the difference in which was entirely borne by the oil companies in West Java and in the proportion of two-thirds increase in other parts) brought back to the roads many cars which had been laid up. As a result of the high tax (13 guilder-cents per litre) which must be paid by vehicles driven by other fuels than gasoline, and of the fact heavy vehicles are not relieved of the assessment of the license tax on a weight basis, the development of this form of road traction, which had increased considerably in 1933 and 1934, practically came to a standstill in 1935.

N. E. I.

Netherlands New Guinea Petroleum Co., a combination of the Royal Dutch-Shell, Standard Oil Co. (New Jersey) and Standard Oil Co. of California, are about to start aerial surveys of an area of approximately 25,000,000 acres in New Guinea on which an exploration concession has been obtained.

Enlarge Trieste Refinery

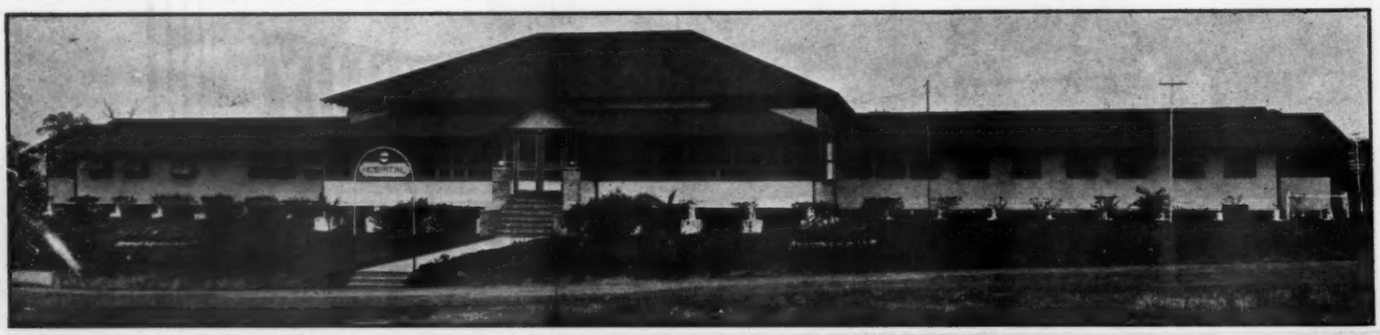
The "Aquila" S. A. Tecnico-Industriale is reported to have let a contract for an addition to its Trieste oil refinery with the Reinmetall-Borsig Works of Dusseldorf, Germany. The addition will practically double the capacity of the plant, to more than 10,000 bbls. daily, at an estimated cost of approximately $1,500,000. It is reported several German technical experts will be added to the board of directors of the "Aquila" company, although the company is dominated by Italian interests.

ITALY

Second World Congress

Organization of the Second World Oil Congress, to be held in Paris June 14-19, 1937, is now under way. M. Louis Pineau, director of the National Office of Liquid Fuels, has been made president and M. Bihoreau, chief of the technical service of the National Office of Liquid Fuels, chairman. The organization committee includes several well-known French and British oil men. The main topics of discussion will fall under three general divisions: (1) Geology and drilling; geophysics; (2) physics—chemistry and refining, and (3) plant and construction—transportation.

FRANCE



Standard Oil Company of Venezuela (Creole) hospital at Quiriquire camp, eastern Venezuela

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The Greatest Threat

The long-range worry is not crude prices, the gasoline market or excessive stocks. These changes in economic conditions come and go, like light and darkness, the temporary result of natural forces which cannot be maintained in perfect equilibrium.

What industry, and particularly the oil industry, has to fear and face is the trend toward confiscatory taxation. And "confiscation" is no mere figure of speech. You can measure it when government already collects more revenue from taxes on gasoline than the industry is able to make by manufacturing and marketing it. Taxation today equals the annual payroll of the industry. How much farther does it have to go to make confiscation complete?

We talk about the price of crude as if that is all there was to it—so much a barrel to the producer. Actually the tax collector gets more per barrel than the producer. Every dollar paid to labor by the industry is matched by a dollar paid in taxes.

Judging by where its revenue goes the industry is working more for government than for itself or for its employes. The constant trend at Washington and in the 48 states to increase taxation, like a crater around a derrick, threatens to engulf the whole structure.

Foreboding is intensified by pending tax measures and the methods by which they are being framed and jammed through, each year more oppressive and more ruthless.

The other problems facing oil men are minor matters compared to this progressive cancer eating its way into the vitals of the industry. The oil business now contributes 11 per cent of the taxes paid in this country. It has long been the subject of discriminatory and grossly inequitable levies. Each additional general tax or tax increase adds that much more to its already back-breaking burdens.

The ratio of taxation to earnings, to pay roll, becomes more and more confiscatory each year. How long can it be before higher taxation affects prices and reduces consumption? What then?

The conferences of the petroleum industries committees of 35 states to be held in New York and Chicago this month and next should do much to solidify opinion before the legislatures. The immediate need is to impress Washington.

The oil man's fiercest competitor today for the buyer's dollar is the tax collector. Excessive taxation reduces the buying power of the industry's customers, limiting the market. It is a deadweight on progress and a determining factor on prices. It is becoming more stifling, more paralyzing all the time, the greatest obstacle to recovery and most dangerous threat of the day.

Refiners Who's Who

"BEGINNING ON JUNE 1, Western Petroleum Refiners Association will inaugurate a new service for its members and for all purchasers of spot tank car gasoline The Tulsa office of the Association will keep on file an up-to-the-minute record of spot tank car gasoline (which meets W P R A specifications) offered by refiner members, covering octane rating, etc. All purchasers are urged to take advantage of this service"—*Official announcement, Western Petroleum Refiners Association*

W P R A last April officially raised the minimum octane rating for "regular grade" gasoline from 63 to 68

Now the Association is telling the trade which refiners are making that new high anti-knock gasoline

What a break for the Dubbs refiners

Their Dubbscracked gasoline will always be listed on that "up-to-the-minute record of gasoline which meets W P R A specifications"

And there wont be enough to go round

Universal Oil Products Co
Chicago, Illinois

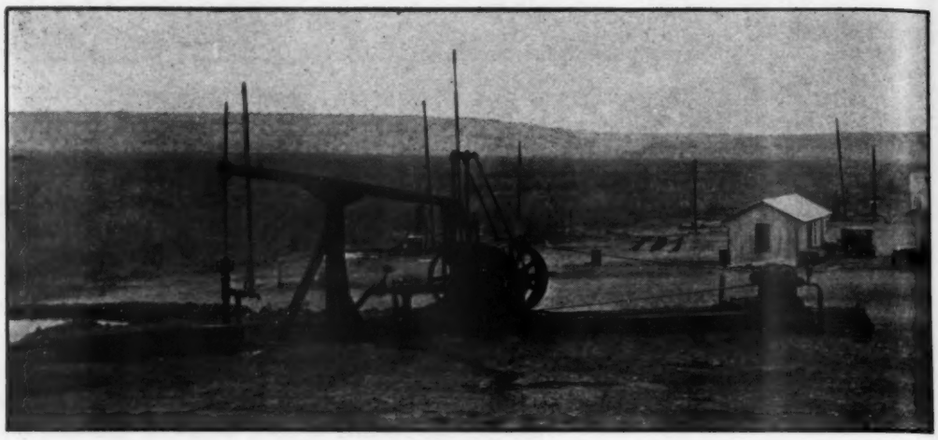
Dubbs Cracking Process
Owner and Licensor

OPERATING IDEAS

Canvas Cover for Equipment

Many pieces of equipment are in use only part time and should be protected by some kind of cover when idle. For this purpose a very practical cover can be made out of canvas, old or new, that is painted until quite stiff after being formed into the desired shape. The advantage of this stiffness is that a better coverage of the piece of equipment can be secured if the canvas does not sag and rest upon the machine beneath.

The color paint used can be selected to match the other equipment in the building or as some pieces of equipment suitable for this kind of cover may be needed in emergency, the cover can be painted to make it easily visible and may be lettered to permit ease of identification. The edges of the canvas should be sewed to avoid fraying if the cover is to be removed often.

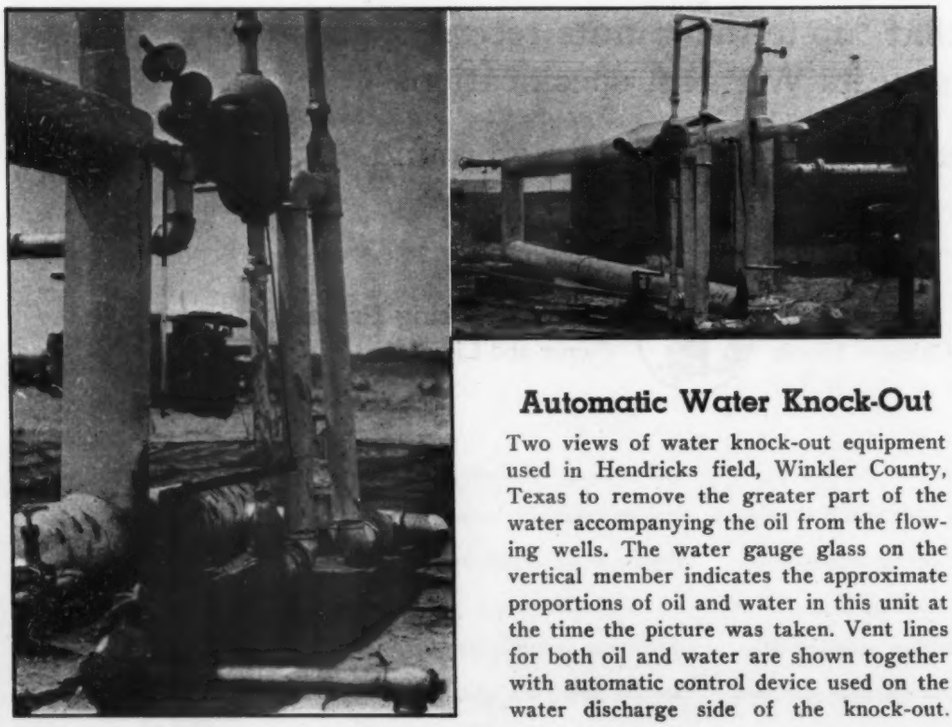


Pumping Shallow Well as Counterbalance to Another

Shallow wells that require pumping always present problems because they usually require very little power after pumping is started but the power unit must be large enough to start operations. In West Texas one producer operating a number of shallow wells solved his pumping problem by using a small electric motor and water well pumping jack. Then by attaching the arm of a walking beam to the cross arm on the well jack the second well was pumped. The wells are in line and about ten feet apart. With this method of hook-up each well tends to counterbalance the other, for when the rods are on the up-stroke in the well being pumped by the walking beam the rods onthe jack-operated well are on the down stroke.

Extension on Master Gate

Close-up view of joint in shaft of remote control of master gate on a high pressure well. The joint makes it possible to have the point near the wheel rest on an "A" frame at a height convenient for an average man to use. If it were not for the jointed arrangement, the shaft would stick so high in the air that it would take a giant to reach it. Either that, or the wheel would have to be placed about where the joint is now. And in this case the whole remote control device would be robbed of its function as a safety device by requiring the operator to come nearer the well at a time of emergency.



Automatic Water Knock-Out

Two views of water knock-out equipment used in Hendricks field, Winkler County, Texas to remove the greater part of the water accompanying the oil from the flowing wells. The water gauge glass on the vertical member indicates the approximate proportions of oil and water in this unit at the time the picture was taken. Vent lines for both oil and water are shown together with automatic control device used on the water discharge side of the knock-out.

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TYPE E

A Swivel constructed along sound engineering lines, incorporating many new features to fulfill the present day demands of ordinary deep well drilling.

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1. Automatic Wash Pipe Packing.
2. Automatic Packing between Housing and Rotating Sleeve.
3. Assembly of Sleeve, Coupling and all Bearings Removable as a Unit.
4. Preformed Weldless Bail with Eyes Bored in Line.
5. Large Pins through Bail Eyes Carry the Load in Double Shear.
6. Lower Packing Renewable without Removing Coupling.
7. Automatic Induced Oil Circulation.

AUTOMATIC PACKING eliminates tightening glands with wrenches . . UNITARY SLEEVE AND BEARING ASSEMBLY may be removed with bearings intact and without disturbing their adjustment . . MAIN BEARING is of tapered roller type with ball bearing below to make up thrust and two radial roller bearings to insure accurate alignment of the sleeve . . HOUSING is heavy one piece steel casting forming oil reservoir and has rest for elevator links . . FLUID PASSAGE (4-inch) is favorable to pump performance.

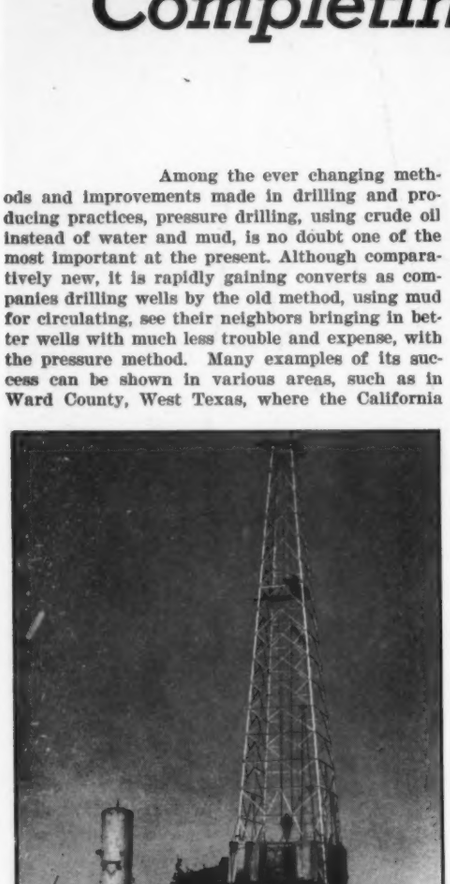
THE NATIONAL SUPPLY COMPANY

National

Pressure Drilling Used Successfully in Completing Wells in New Mexico

By L. E. BREDBERG

Among the ever changing methods and improvements made in drilling and producing practices, pressure drilling, using crude oil instead of water and mud, is no doubt one of the most important at the present. Although comparatively new, it is rapidly gaining converts as companies drilling wells by the old method, using mud for circulating, see their neighbors bringing in better wells with much less trouble and expense, with the pressure method. Many examples of its success can be shown in various areas, such as in Ward County, West Texas, where the California



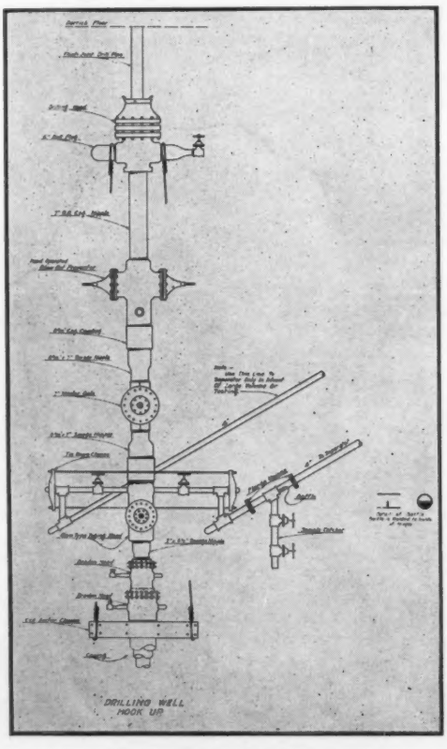
Derrick and sub-structure ready to be skidded to another location

Co. has been using the method for many months, and in New Mexico, where the Continental Oil Co. is specializing in the work. The Big Lake field, in Reagan County, was the first to see pressure drilling in the West Texas and New Mexico division, although the method has been changed considerably since the first deep (Ordovician) wells were drilled in with the method in that field. Companies use practically all conventional drilling equipment for the work now, and are able to use the method more economically than at first.

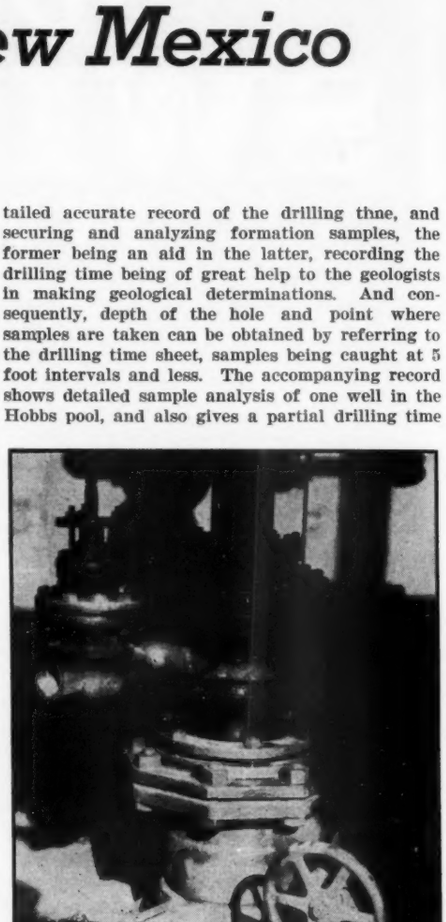
In using the pressure method in completing wells, no mud is used after setting the oil string, crude oil, which is taken from a nearby or other well, being used for the drilling fluid. Mud is often responsible for sealing off the sand or lime pay formations, thereby trapping the oil back in the formation, which often is caused to channel, letting the gas escape through the channels and holding back the oil so that a well's first or potential gauge is a small one. One of the main reasons for using the pressure completion method is for the purpose of obtaining better and more production from the wells, a superintendent of one of the companies using the method, stating that at least 25 per cent more initial oil can be produced from a well completed by this method than by the conventional mud method. In using mud for completing wells a long swabbing or reworking job is often necessary to clean up the formation in order to get the best results from the saturated horizon. Some wells have taken as long as six months to get rid of the drilling water after the well starts flowing, some of these wells producing from 2 to 20 per cent water for such a length of time after completing. These wells often require the installation of treating equipment, the oil necessitating treating before the pipe lines will take it, whereas when a well is completed by the oil pressure method it is ready to be turned into the tanks and the pipe lines will immediately make connection to same and start running the oil.

When a well is completed by this method, the well is in excellent shape in all respects, there being no waste oil to be found around the rig or in the slush pits, which can constitute fire hazard. It has proven successful in southeastern New Mexico because wells completed in this area have been found to be erratic as to the formations, which may carry oil or gas, or both, and sometimes neither, often times several oil and gas horizons being found before the wells are completed, which necessitates using the utmost care and safety in drilling and completing in order to prevent blow-outs and fires, or the sealing off the oil and gas in the formations. High pressures also make it a desirable method for completing wells, and operators in other high-pressure areas, such as the Oklahoma City field, would find it a successful and desirable method for drilling in wells in that field, especially those lying adjacent to homes and other buildings where drilling in wells is a menace unless great care and all safety precautions are taken, and this has been found to be one, if not the safest method to be used in completing wells.

Two of the most important features in using the pressure drilling method are: keeping a detailed accurate record of the drilling time, and securing and analyzing formation samples, the former being an aid in the latter, recording the drilling time being of great help to the geologists in making geological determinations. And consequently, depth of the hole and point where samples are taken can be obtained by referring to the drilling time sheet, samples being caught at 5 foot intervals and less. The accompanying record shows detailed sample analysis of one well in the Hobbs pool, and also gives a partial drilling time



Hook-up for drilling in



Part of connections, Rector head, in place in clean cellar of a completed Continental well in New Mexico

record on same, showing where tests were taken and their results. The detailed sample report shows the formations drilled below the oil string in drilling in the well, with recommendations made by the examining geologist as to deeper testing in case the well failed to make a commercial producer at a certain point.

The simplified pressure drilling was described as follows by one of the men supervising same for one of the companies using it entirely in New Mexico, this description eliminating all drilling prior to setting the casing on top of the pay formation after drill-stem test is made and the pipe set to case off gas formations above the pay zone.

Method

A ram-type tubing head is installed on the casing string, this head having a ram made to fit the 2½-inch tubing string which will be used to produce the well, two 4-inch outlets in the head being located above the rams. The tubing head outlets are then cemented, using 4-inch high-pressure gate valves on each outlet. One outlet is run to the mud pit as a mud line and the other to the separator, using standard connections beyond the one high-pressure gate valve at the head. A cutting trap and baffle nipple is installed in the latter line just downstream from the 4-inch gate valve. This trap is used for catching samples for geological departments.

The separator is permanently set at its desired

location, where it will remain as permanent producing equipment, two separators not being necessary now as formerly in using the pressure-drilling method. Formerly one high-pressure and one low-pressure separator was used with the method. During the "drilling in" an extra gas-relief line is connected to the separator to more quickly evacuate the gas used in "kicking off" the well when testing. Orifice gauges may be installed, if desired, for accurate measurement of gas production.

The separator oil-discharge line is connected to the lease tankage and a by-pass line to the circulating tanks which contain the oil to be used in drilling in. This tank is tied into the mud pumps. The high-pressure gas line is tied into the bottom of the standpipe.

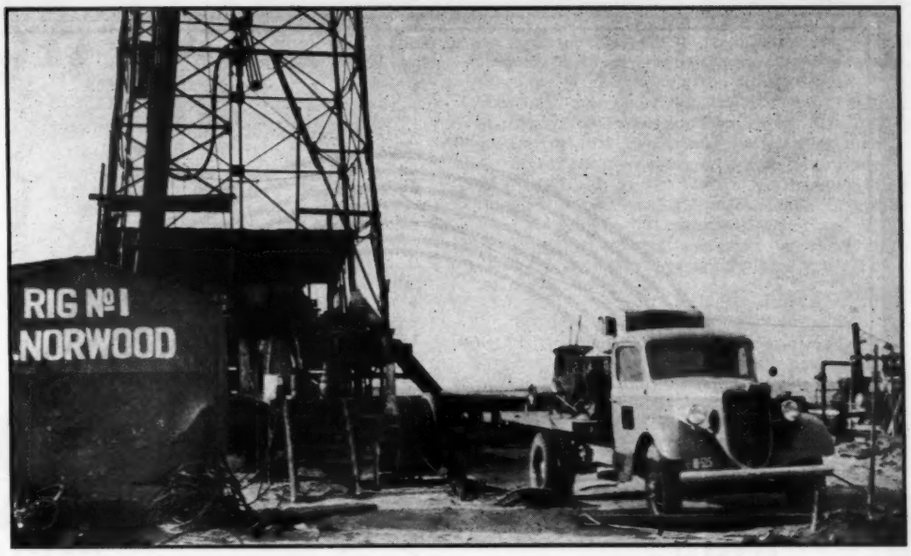
Above the tubing head the rotary drilling-in hook-up is installed. A master-gate nipple, ram-type blowout preventer with rams to fit the flush-joint drill pipe used in drilling in. Above this ram-type head, and directly under the rotary table, a rotary-type (O.C.T. or Sheldon Burden) blowout preventer is used.

Flush-joint drill pipe is used in drilling in the well, generally two back-pressure valves, and the rock bit being snubbed directly to the first stand of pipe, with no drill collar or "kelly joint" used in the drilling-in process. The pipe is rotated with a Hauser drive in the rotary table.

When the plug is drilled, mud is circulated out with clear water and the casing tested, and a steel line is run to check measurements. The water in the hole is displaced with oil, and the line closed to mud pits and opened through the separator when the hole is free of water. From this point the drilling time is accurately charted for each foot of formation drilled, and the drilling weight is kept constant regardless of the formation. Samples are taken from the cuttings trap at each 5 feet.

When the probable pay formation has been drilled, the hole is circulated clean of cuttings, the drill pipe is raised a few feet off bottom and the well "kicked off" by "slugging" high-pressure gas through the standpipe. When the well is unloaded the gas is shut off and the production tested by gauging the oil in stock or test tanks and the gas measured with an orifice meter or pitot tube through the separator relief lines.

If further drilling is necessary in order to pick up an increase in pay formation and production, the well is killed with oil and drilling continued as before, until desired penetration has been reached. If production is at such a rate that the well cannot be killed with oil, drilling can be carried on without interruption while the well is flowing. Wells in Lea County, New Mexico, have been drilled in with this equipment, carrying 500 pounds pressure at the blowout preventer. On wells of this type, pressure is kept off the separator by pinching the 4-inch high-pressure gate at the tubing head. However, the average well in the county will remain static when the hole is loaded with oil. In such wells the drill pipe is pulled, filling the hole with oil as the pipe is removed. If the well cannot be killed with oil, the ram-type drilling blowout preventer is closed on the drill pipe, the upper preventer is stripped off, equipment installed and the drill pipe snubbed out of the hole.



New Mexico well ready to drill in by pressure method

TABLE 1—EXAMINATION OF SAMPLES FROM MEYER B-8 NO. 4

Depth (feet)	
3,800–05	Dolomite, crystalline, porous, 100%.
3,805–10	Dolomite, crystalline, porous, about one-half of which is oil-stained 90%. Sand 10%.
3,810–15	No sample.
3,815–20	Dolomite, somewhat porous and oil-stained 100%.
3,820–40	Dolomite, porous slight oil-stain 100%.
3,840–45	Dolomite, small amount of sandy dolomite 100%.
3,845–50	Dolomite, slightly porous, crystalline, faint oil-stain 100%.
3,850–55	Dolomite, very porous, crystalline and heavily oil-stained 100%.
3,855–60	Dolomite, much less porous, slightly oil-stained 90%. Sandy dolomite 10%.
3,860–65	Dolomite, porous, granular, crystalline 100%.
3,865–70	Dolomite, porous, granular, crystalline, oil-stained 70%. Sandy dolomite 30%.
3,870–75	Dolomite dense 100%.
3,875–80	Dolomite somewhat porous and slightly oil-stained 60%. Sandy dolomite 40%.
3,880–85	Dolomite somewhat porous and slightly oil-stained 60%. Sandy dolomite 40%. Traces of dry, unstained, very porous dolomite.

Drilling-Time Record

3,822–25	Hard
3,826–30	Very soft
3,847–49	Soft
3,850–53	Very soft
3,854–59	Hard
3,867–69	Very soft
3,870	Harder
3,878–83	Very soft
3,883–85	Hard

Tests Were Taken as Follows:

3,749–3,800	Drill stem test—5,000,000 ft. of gas and oil show.
3,791	6⅝" casing set.
3,791–3,810	Drill stem test—200' of mud and oil; show of gas.
3,791–3,857	10 bbls. oil per hour on gas lift.
3,791–3,885	20 bbls. oil per hour on gas lift.
3,791–3,885	Treated with 1,500 gallons hot acid—no back pressure. Tested 30 bbls. oil per hour and 4,000,000 ft. of gas through tubing after acid.

The advantages of this method of completing wells are listed as follows:

1. The only extra equipment necessary is the hook-up from the separator to the circulating oil tank and to the mud pump.

2. No high-pressure fittings are necessary beyond the high-pressure gate at the tubing head.

3. No mud or water is used on the producing formations.

4. No sand line or swabbing line is necessary to bring the well in after running the tubing.

5. Decreases day-work time in completing a well, which is especially desirable to the drilling contractors.

6. The tubing head used and the separator installed are standard production equipment, as mentioned above.

7. Flush-joint drill pipe, master gate and blowout preventer are furnished by the drilling contractor.

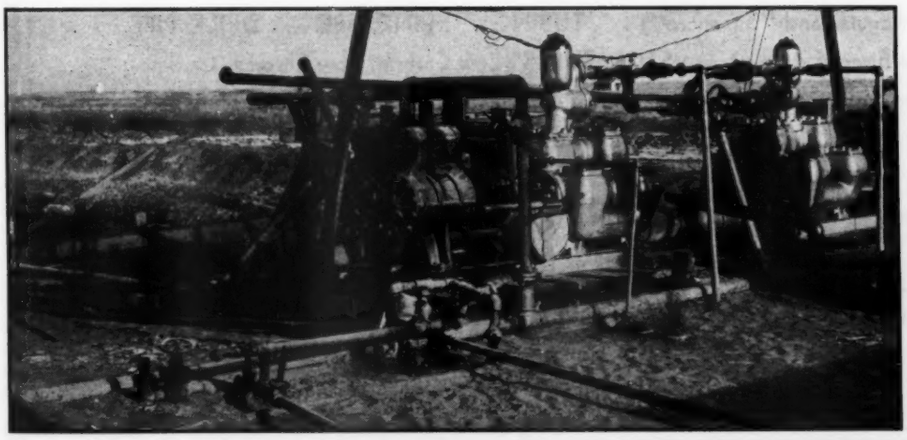
8. At any point in the "drilling in," the well can be tested for both oil and gas production by actual gauge of same.

9. Reduces fire hazards, loss of oil and danger of a wild well.

10. As mentioned above, makes better wells, getting higher potentials and better production.

In circulating cuttings through the separator it has been found that practically no cuttings remain in the separator, but are carried on through to the oil-circulating tank where they settle out and are removed when the tank is cleaned before moving to the next well.

The men credited with carrying on this work so successfully in the New Mexico district for the Continental Oil Co. are: Hugh L. Johnston, superintendent of production in the district; P. H. Colliston, petroleum engineer, who charts the drilling time and obtains samples, and Ed Kimball, geologist, who examines and analyzes the samples and makes correlations and recommendations as to deeper drilling, testing and setting packers.



Conventional hook-up of pumps used by Continental in oil pressure method for drilling in and completing wells in the Monument field, New Mexico

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A New High Octane Blending Agent

By H. E. BUC and E. E. ALDRIN
Standard Oil Development Co.

In the modern aircraft engine the increased power output for a given piston displacement has been made possible only by improvement in fuels to permit of higher compression and greater supercharger boost. In 1930 the U. S. Army Air Corps standardized on 80 A.S.T.M. octane number and in 1931 raised this standard to 87 A.S.T.M. octane number. Since 87 octane fuel has been available for the past five years, and since the possibilities of higher octane fuels is permitting greater advances in engine design, output and economy are generally recognized, the obvious question arises as to why the antiknock value of aviation fuels has taken no definite upward rise during this period. It must be recognized that the attainment of high octane number in a natural fuel, and by high octane is meant a value approaching or exceeding that of pure iso-octane, is not only a scientific but an economic problem, considering that sufficient quantities must be in sight for any possible requirement before engines for its proper and exclusive utilization will be generally used. Within limits high octane fuels have been available and used experimentally to demonstrate the advantages of high output engines through the medium of using higher than 3 cc. of tetraethyl lead per gallon and more recently through the medium of technical iso-octane which is now available in commercial quantities at a cost which in many cases makes its use profitable. The object of this paper is to describe a new fuel of high antiknock value apparently suitable in all respects for the modern high output aircraft engine and potentially available in large quantities.

There still exists some considerable confusion in regard to evaluating the antiknock value of aviation fuels in terms of flight performance as related to any single-cylinder engine test. In the remaining parts of this paper, octane number will be understood to be by the Army test method, unless otherwise designated.

Developments in engine design during the past 10 years are roughly indicated in Figure 1, taken from a paper presented at the S.A.E. meeting in Detroit in January, 1936, by R. W. Young of the Wright Aeronautical Corp. Figure 2 from the same paper shows the variation in cylinder head temperatures for different specific fuel consumptions when using various octane number fuels (A.S.T.M.) in a 1930 Cyclone 600-horsepower engine and a 1935 Cyclone 800-horsepower engine. The latter curve, indicating the minimum specific consumption possible without either misfiring or a sharp rise in cylinder-head temperature, illustrates a significant and important benefit obtainable with high-octane fuels. The advantages of high-compression ratio other than increase in air-cycle efficiency may, therefore, logically include the possibility of operating at leaner air-fuel mixtures. Suitable fuels permit of such leanness without excessive head temperatures.

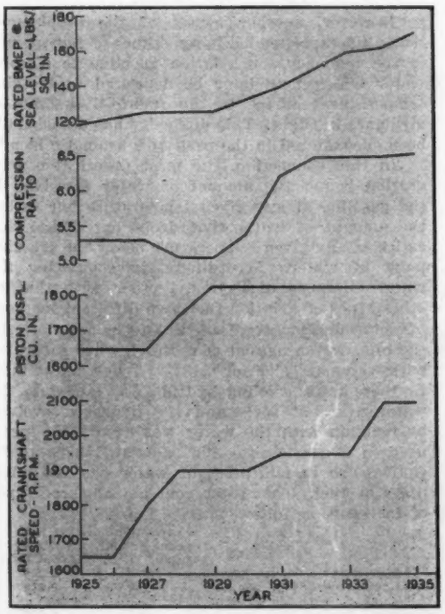

Fig. 1—Trends in characteristics of Cyclone engine taken over a 10-year period

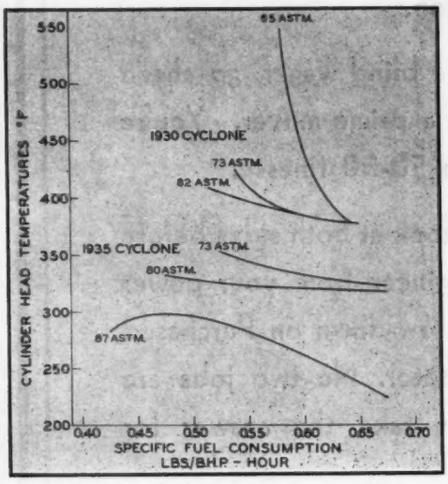

Fig. 2—Variation in cylinder head temperature with fuel consumption and octane rating (A.S.T.M.)

S.A.E.—Motor fuels of 100 octane value containing relatively small quantities of lead and available in large quantities at prices competitive with regular aviation fuels have been sought by the army and commercial air lines. The authors outlined the characteristics of a new motor fuel at the recent annual meeting of the society.

When engines are designed to cruise at best economy on a given fuel, serious limitations are encountered at full power take-off, during climbing and in emergency conditions. These limitations are overcome in practice either by providing a special fuel of higher octane number than required for cruising or by operating at rich mixtures when delivering full power. With super-octane fuels it would appear that full power take-off will be possible without full rich adjustment and coincidentally have cruising at mixtures approaching the misfiring point without approaching critical head temperatures.

Previous Experience

The experience of air lines and engine manufacturers has shown that, with present design and existing materials, a moderate concentration of tetraethyl lead is desirable in controlling and stabilizing combustion in high-output engines, and at the present time the best blended fuel would appear to be one of approximately 100 Army octane number containing 3 cc. of lead per gallon.

Petroleum chemists the world over have for many years been seeking new materials suitable as high-antiknock fuels by themselves or as blending agents in the preparation of base stocks to which some antiknock compound such as tetraethyl lead could be added in small quantities to give the desired high-antiknock value. Technical iso-octane is one such material already made commercially available. The petroleum industry has now succeeded in providing a new material to supplement technical iso-octane. This material is isopropyl ether. Contrary to the behavior of ethyl ether, which is a violent knock inducer, isopropyl ether, along with some other ethers, has been found to be an exceptionally good antiknock fuel. During the past eight years experimentation has progressed on this material and methods of manufacture studied until at this time it appears to be an important factor in the successful solution of the high antiknock fuel problem.

The physical characteristics of isopropyl ether are shown in Table 1, along with corresponding values for pure iso-octane and benzene shown for comparison.

In considering the physical characteristics of aviation gasolines, the subject of water tolerance is of major importance. The existing specifications for water tolerance of aviation fuels require only that, when 80 ml. of the fuel are shaken with 20 ml. of water at room temperature, the increase in volume of the water layer shall not exceed 2 ml. This requirement is directed against the use of alcohol blends from which the alcohol is usually

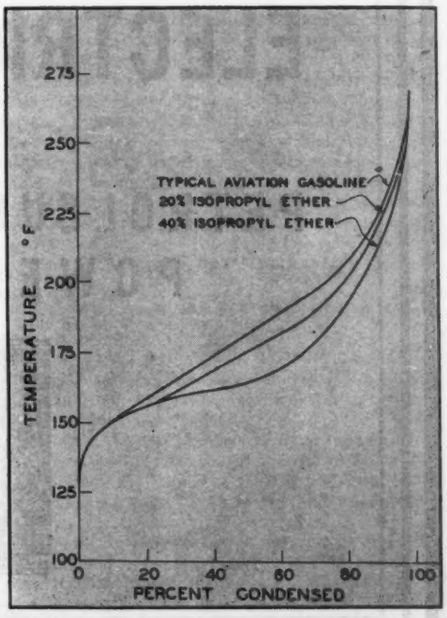

Fig. 3—A.S.T.M. distillation of isopropyl ether blends

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If you can afford a blind wager, go ahead and put in any kind of a prime mover. You're either right or wrong—a 50-50 finesse.

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easily separated by the addition of water. Isopropyl ether has only very slight solubility in water and the above water tolerance test usually shows no measurable increase in the water layer, even when concentrations of 40 per cent are used in blends with aviation gasoline.

The low solubility of isopropyl ether in water was demonstrated by a more accurate analysis than the above rough test. 503 ml. of a 40 per cent blend of isopropyl ether in aviation gasoline were shaken with 497 ml. of water until equilibrium was established. The final contraction of the gasoline layer was 2.63 ml. or 0.52 per cent. The water content of the gasoline layer was then determined (by a method described below) as 0.09 per cent. Since no change was found in the total volume

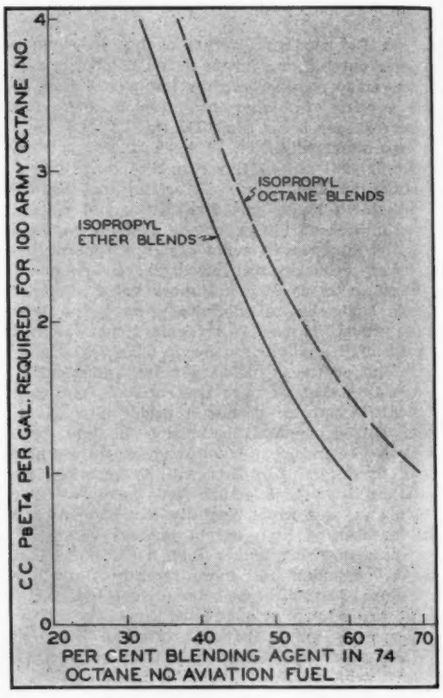

Fig. 4—Lead needed in aviation gasoline blends for 100 Army octane number

(1,000 ml.) of gasoline and water, the total loss of isopropyl ether by solution in water was 0.61 per cent on the basis of the original blend or 1.5 per cent of the isopropyl ether itself.

However, another aspect of the problem of water tolerance, which is sometimes of importance, is the tendency for aviation gasoline to dissolve water which may later be deposited at freezing temperatures as ice in the fuel-feed systems of airplanes in flight. This difficulty has occasionally been encountered in the past with aromatic blends.

In this connection, the most practical consideration is not the amount of water dissolved in the gasoline at any given temperature but rather the amount of water that drops out of solution as ice at any given temperature below the freezing point of water. Accordingly, in comparing the water tolerance of isopropyl ether with that of other types of aviation fuel, two different methods of determination were used. In one set of tests, the total water content of the fuel, when saturated with water at 77° F. or at 32° F., was determined. In these tests, calcium hydride was added to the water-saturated fuels and the hydrogen evolved by reaction with the water was accurately measured in a gas burette and calculated back to its equivalence in milliliters of water per 100 milliliters of fuel. The water contents of three types of fuel were as follows:

	Ml. of water/100 ml. sat. at 77° F.	Ml. of water/100 ml. sat. at 32° F.
100% Regular avia. gaso.	0.007	0.006
Avia. gaso. with 40% benzol	0.022	0.019
Avia. gaso. with 40% isopropyl ether	0.085	0.062

In the second series of tests, in which the actual water separation was measured, it was shown that,

although the isopropyl ether blends dissolve more water at 77° F., they also retain more water in solution at temperatures as low as —20° F. Consequently, the tendency to separate is not as great as appears from the water content at 77° F.

In the second series of tests, the ice separation at —20° F. was determined directly. The aviation fuels were saturated with water at 70° F. and then pumped first through a precooler at 32° F. and thence into an ice trap at —20° F. At the end of each test, the ice trap was disconnected and its water contents were distilled with air through a weighed drying tube. The weight of water was then obtained directly. The results on the same fuels as used in the previous tests were as follows:

	Ml. water separated at —20° F. per 100 ml. of fuel at 77° F.
100% Regular avia. gaso.	0.0005
Avia. gaso. with 40% benzol	0.0030
Avia. gaso. with 40% isopropyl ether (2 tests)	0.0050 and 0.0060

Furthermore, in two more tests at —10° F. on the blend, in one of which the fuel contained an additional 0.5 per cent of methanol, it was found that, although the same volume of separation occurred in both cases (0.005 per cent), the separation occurred as ice in the absence of methanol and as liquid in the presence of methanol. The melting point of the ice was +25° F. and the freezing point of the liquid, which was found to contain about 40 per cent methanol, was —50° F. It appears, therefore, that the tendency for isopropyl ether to take up water, although meriting attention, under some conditions is not an important handicap to its use in aviation fuels.

Another characteristic of major practical importance in determining the acceptability of a fuel is its storage stability. Blends of isopropyl ether in aviation gasoline have low gum content by all the usual methods of test. With the addition of 1 to 2 milligrams of gasoline inhibitor per 100 ml., these blends also have satisfactory resistance to oxidation. The induction period determined at 212° F. under oxygen pressure of 100 pounds per square inch exceeds seven hours.

The gum tests and the oxidation test are usually accepted as measures of the storage stability of a fuel. However, actual storage tests are also being made to confirm the indications of the accelerated tests. Table 2 shows the preliminary results of storage tests now in progress. After two and one-half months at 100° F., the stability of the isopropyl ether blends, both leaded and unleaded, appears unimpaired.

Figure 3 shows the distillation effect of various percentages of isopropyl ether in aviation gasoline and demonstrates that mid-range volatility may be varied widely without materially affecting overall boiling range of the gasoline.

A considerable amount of data is available in regard to the octane number and lead susceptibility of blends of isopropyl ether by various methods. Summarized data are shown in Tables 3 and 4. A study of these results justified the following conclusions in regard to performance on single-cylinder test engines:

(a) Blended in commercial aviation gasolines, a fuel of 100 Army octane is possible with 40 per cent of isopropyl ether without exceeding 3 cc. of lead tetraethyl.

TABLE 1—PHYSICAL CHARACTERISTICS OF PURE COMPOUNDS

	Isopropyl ether	Pure iso-octane	Benzene
Boiling point, deg. F. at 760 m.m. of hg. pressure	154 (153-158)	211	175
Density at 68° F. (20° C./4° C.)	0.725	0.691	0.878
Refractive index at 68° F.	1.3680	1.3921	1.5014
Freezing point, deg. F.	—125	—162	42
Viscosity, centipoise at 68° F.	0.322 (68° F.)	0.543 (65° F.)	0.647 (68° F.)
Latent heat of vaporization, B.t.u./lb.	123	130	170
High value of heat of combustion, B.t.u./lb.	16,900	20,580	17,650
Low value of heat of combustion, B.t.u./lb.	15,600	19,200	17,000
Low value of heat of combustion plus latent heat of vaporization, B.t.u./gal.	95,100	111,400	125,700
Reid vapor pressure, lbs./sq. in. at 100° F.*	5.3	2.2	3.2

Reid vapor pressure determined on commercial products rather than C.P. compounds. In case of benzene, vapor pressure value is for commercial 90 per cent benzol.

TABLE 2—STORAGE TESTS ON AVIATION GASOLINE IN HOT ROOM AT 100° F.

Blend: 60% Aviation Gasoline—40% Isopropyl Ether—Unleaded and with 3 cc. Lead/gal., and with 1.4 mg. B.A.P. Inhibitor per 100 ml.

Blend	50 gallons unleaded				50 gallons leaded				5 gallons unleaded				5 gallons leaded			
Storage container	New galv. drum		Used galv. drum		New galv. drum		Used galv. drum		Tin can		Tin can + 1 qt. sea water		Tin can		Tin can + 1 qt. sea water	
Date of sample (start 1/30/36)	1/30	4/13	1/30	4/13	1/30	4/13	1/30	4/13	1/30	4/13	1/30	4/13	1/30	4/13	1/30	4/13
Cu. Dish Gum (mg./100 cc.)	4.5	4.0	4.5	3.0	4.5	4.0	4.5	3.0	3.5	2.5	3.5	3.5	3.5	4.5	3.5	4.0
Army Gum (mg./100 cc.)	1	2	1	2	1	2	1	(†)	1	1	1	(†)	1	(†)	1	1
Air Jet Gum (mg./100 cc.)	1	1	1	1	1	1	1	(†)	1	(†)	1	(†)	1	1	1	1
Oxidation induction period in hours*	7.9	9.7	7.9	10.0	10.5	9.4	10.5	15.3	7.9	14.6	7.9	7.3	10.5	6.9	10.5	7.8

*20 ml. of sample at 212° F. under oxygen pressure of 100 lbs./sq. in. †Trace.

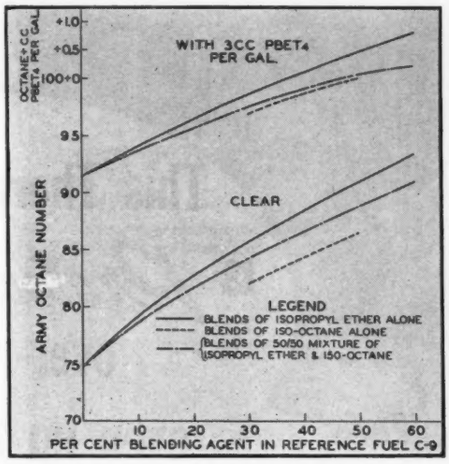

Fig. 5—Octane number blending characteristics of isopropyl ether and iso-octane by army method of test

(b) The blending value of isopropyl ether is slightly superior to the blending value of technical iso-octane in unleaded blends and also superior for any fixed amount of lead tetraethyl in the corresponding blends.

(c) When blended with 74-75 octane gasoline, and without exceeding 3 cc. of lead per gallon, an octane number of approximately 101-102 is the maximum possible when using technical iso-octane as a blending agent, whereas isopropyl ether will give at least 105 in concentrations of about 65 per cent or over.

(d) The amount of lead tetraethyl necessary to meet a given octane number is less for isopropyl ether than for technical iso-octane in blends containing the same percentage concentrations.

A recent survey of potential supplies of propylene, the raw material for making isopropyl ether, has shown that in this country sufficient is available, exclusive of all other normal demands for other purposes, to produce at the present time approximately 340,000,000 gallons per year of technical isopropyl ether. Assuming that 100 octane fuel is required (using 3 cc. lead/gallon), this is sufficient to produce some 850,000,000 gallons per year of finished product. Thus, it is apparent that the availability of this fuel is much more than sufficient to meet the entire requirements for 100-octane gasoline even in the event of national emergency. When combined with the available supplies of technical iso-octane, estimated at 155,000,000 gallons per year, there is every assurance that adequate quantities will be immediately available for any demand. The cost of the material for large production is entirely reasonable.

When isopropyl ether and iso-octane are available, blends of the two offer certain advantages lacking in either when used separately, particularly with respect to volatility. Data have been presented which show that a 50-50 blend of the two in Standard knock reference fuel C-9 has an antiknock value superior to that obtained when using iso-octane alone as a blending agent.

Tests have been run on high-output multi-cylinder engines, comparing the performance of the following fuels:

Conclusions drawn so far indicate:

Straightrun gasoline + iso-octane + lead to 100 O.N.
Straightrun gasoline + isopropyl ether + lead to 100 O.N.
Straightrun gasoline + lead to 92 O.N.

1. The 100 O.N. isopropyl ether blend has a minimum specific fuel consumption 13 per cent lower than the 92 O.N. regular gasoline when run under cruising conditions.

2. The 100 O.N. isopropyl ether blend has a minimum specific fuel consumption 5 to 7 per cent higher than the 100 O.N. iso-octane blend under cruising conditions. This is in proportion to its lower heat content.

3. The lower economy of isopropyl ether may be overcome by going above 100 O.N., which is possible with this material.

4. The 100 O.N. blends of isopropyl ether and iso-octane are equal in power output and consumption under high power conditions, such as during take-off.

TABLE 3—SINGLE-CYLINDER OCTANE NUMBER DATA FOR BLENDS IN AVIATION GASOLINE OF 74 C.F.R.-M.M.

Blending agent—	Volume % added	A.S.T.M. Octane Numbers Clear	1 cc. Ethyl lead/gallon	3 cc. Ethyl lead/gallon	Clear blending value	Army Oct. No. 3 cc. Ethyl lead/gallon	Series 30 at 375° F. Oct. Nos. clear
Isopropyl ether	0	73.5	82.0	87.5	...	...	69
	10	76.3	84.1	89.3	102	...	72
	25	80.5	88.6	94.0	101	...	78
	40	85.0	....	97.5	102	100	82
Iso-octane	0	73.5	82.0	87.5	...	...	69
	10	76.0	84.0	89.0	99	...	72
	25	79.4	86.8	91.4	97	...	76
	40	83.0	....	94.2	97	99	80
	50	85.5	93.0	96.0	98	...	82

TABLE 4—SINGLE-CYLINDER ARMY OCTANE NUMBERS OF BLENDS OF ISOPROPYL ETHER AND TECHNICAL ISO-OCTANE IN KNOCK REFERENCE FUEL C-9

Blends of Reference Fuel C-9 Volume % of isopropyl ether	Volume % of crude iso-octane	Octane Numbers by Army Method Clear	With 3 cc. tetraethyl lead/gallon	Clear blending value of blending agent
0	0	74.8	93.0	...
10	0	79.0	94.0	117
20	0	82.7	96.6	114
30	0	85.7	98.4	111
40	0	88.3	Equals iso-octane + 0.18 cc. lead	109
		90.6	Equals iso-octane + 0.44 cc. lead	106
50	0	93.5	Equals iso-octane + 0.82 cc. lead	106
60	0	77.8	93.6	105
5	5	81.5	96.0	108
10	10	84.1	97.6	106
15	15	86.7	99.2	105
20	20	88.8	Equals iso-octane + 0.08 cc. lead	103
25	25	91.0	Equals iso-octane + 0.22 cc. lead	102
		82.0	97.0	99
30	30	84.4	98.7	99
0	30	86.5	Equals iso-octane + 0.05 cc. lead	98
0	40			
0	50			

Data obtained through the courtesy of Maj. S. D. Heron, Ethyl Gasoline Corp.

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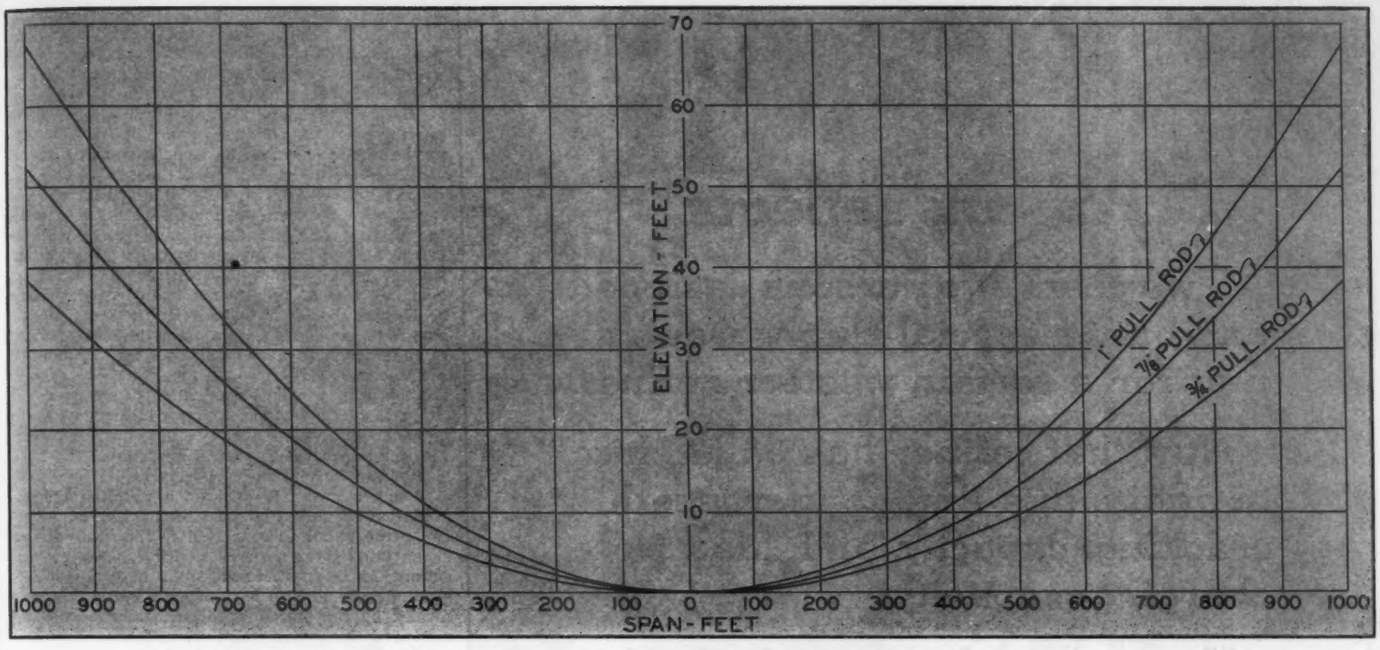


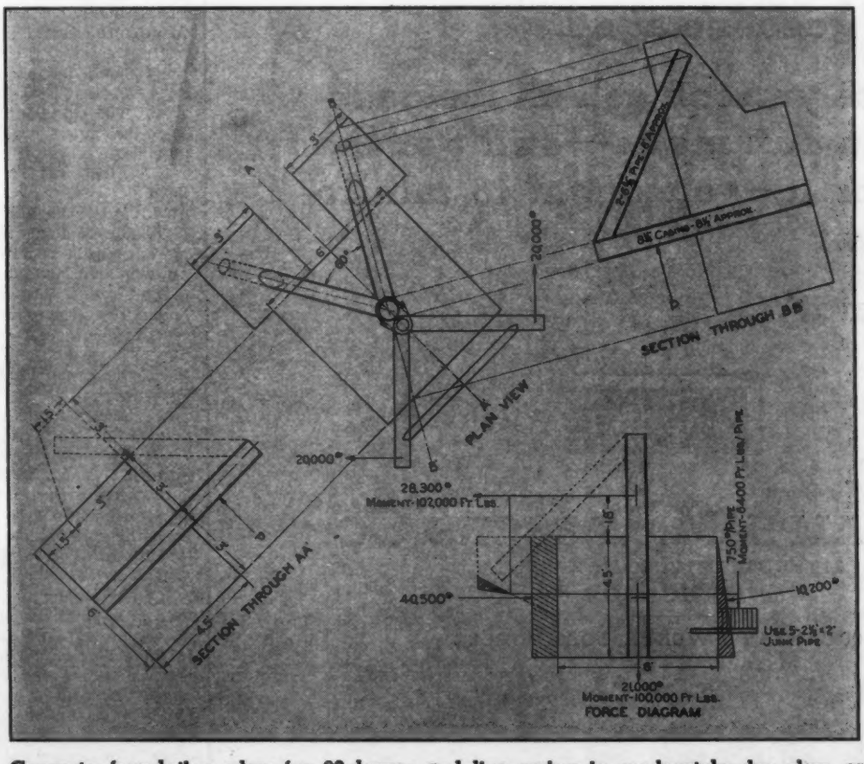
Curves for determining maximum allowable sag in pull-rod spans with 20,000-pound maximum pull-rod load

Rod Line Installation Economies

By T. P. SANDERS

Cost is the principle consideration when installing rod lines, rod line jacks, and other rod line equipment, since these are generally used on properties where oil production is relatively small, and the margin of profit limited. Thus it is necessary to reduce the amount of equipment required to a minimum, to avoid the use of unnecessarily large concrete foundations, and plan the work so that changes will not be necessary. The alignment of the completed installation must be correct in order to avoid excessive wear and additional power costs. Also the construction must be of such quality that repair and maintenance costs will be at a minimum throughout the life of the wells on the system. Since each installation is a separate problem, quite a bit of planning, diagramming, and preliminary lay-out work are usually necessary to insure favorable results. On larger jobs complete detailed drawings should be made before the work is started.

One development in rod line lay-out work which usually permits a worth while saving is the practice of installing swings, hold-overs, and certain types of back-side crank assemblies at an angle, rather than vertically where the ground is not level. Using this procedure it is often possible to save installing several hold-ups and hold-downs, and reduce the friction loss in the completed rod line. To many operators these leaning installations present an untidy appearance, but since they represent greater efficiency their appearance should be secondary. In setting this equipment at an angle, the use of a transit is essential. No difficulty is usually found in this work where only one angle is to be considered, but for installing swing supports it is difficult to place the pipe and braces at the right angle and to keep them in position while the concrete foundation is being poured. In such cases it is necessary to determine the plane in which the rod lines will lie as they radiate from the arms of the swing. The pipe to which the swing is attached is installed normal to this plane. In case the rod lines leave the swing in catenary curves instead of straight lines, the pipe must be installed normal to the plane determined by the tangents to these curves at the points where the rod lines join the swing arms. This causes the direction of pull on the rod lines to be perpendicular to the axes of the swing bearings, which, of course, is necessary to prevent excessive wear.



Concrete foundation plan for 90-degree rod line swing in moderately dry clay, or equivalent soil, with maximum pull-rod load of 20,000 pounds, and a maximum height of rod line aboveground at the swing of 18 inches. Factor of safety equals 2 plus

The use of catenary curves in rod line construction is advantageous where they require no additional expense, such as excavating or installing equipment high above the ground to make room for the sag. It is believed, in other words, that catenary curves should be used only where the topography favors them. Their chief ad-

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vantage is that most of the weight of the rod line is carried by the hold-ups, hold-downs, crank assemblies, and jacks at the ends of the curves. These usually operate with a smaller co-efficient of friction than the wooden rod line supports.

In running a rod line with the proper catenary curve it is possible to put in the supports at the proper elevation by using a transit or level for each elevation. However, time is saved, and usually a more even curve is obtained by stretching a wire between the ends of the curve with the proper sag, and determining the elevations of the tops of the supports by the wire. It is important that the allowable sag for the maximum load and size of rods is not exceeded. This may be checked by sighting between the ends of the curve and measuring down from the line of sight to the wire with a levelling rod. The amount of sag should be as close to the allowable sag as the topography will conveniently permit.

In installing equipment on which there is to be a horizontal load effective, it is advisable that the rod line be close to the ground, so that the size of the foundation block may be smaller.

When a swing is used on a rod line the installation should be planned so that the angle between the rod lines connected to the arms of the swing is as great as possible. This makes the resultant force on the swing-post and foundation small. It should also be remembered that the arc formed by the ends of the swing arms when in motion deflects the rod line, and thereby often puts bending stress on the rods. To minimize this the swing should be installed so that the center line of the rod line will divide this deflection. This can be accomplished by locating the equipment so that the center line of the rod line strikes the swing arm about three quarters of an inch inside the center line of the rod line bearing when in the normal position.

Concrete Foundations

Concrete foundations for rod line equipment often call for relatively large weight and large bearing surfaces rather than high unit strength. however strength is necessary to guarantee permanency. Where size is required rather than great strength, it is advisable to use a large amount of rock. In the firm soil it is possible to save in excavating and concrete costs by driving pieces of 2-inch junk pipe in the sides and bottom of the hole excavated for the foundation. The ends of these should protrude so that they will be held fast by the concrete.

In the use of concrete the following precautions should be taken:

1. Cement should be kept dry.
2. The aggregate should be free from silt and have as much gradation in size of grains as possible.
3. Field rock, if used, should be clean and hard.
4. Water used should be clean.
5. The amount of water used should not be more than is required for properly placing the concrete and puddling it. About 6½ gallons per sack of cement is recommended.
6. The time of mixing should in all cases exceed 1 minute and never be longer than 45 minutes. About 2 minutes in a mixer is good practice. When hand mixing is used, much more time is necessary.
7. The concrete in the forms should be puddled around the edges.
8. No free water should be allowed to run into the forms.
9. After the concrete has taken its initial set, it should not be subjected to too much heat from the sun for one day. This may cause cracking. It can easily be protected by covering it with moist earth or spraying it with water

Concrete sets due to the fact that the water used in mixing is taken up by the cement as water of crystallization. Too much water leaves voids in the concrete. Mixing too long causes the action between water and cement to be partially completed before the concrete is in the forms. Mixing not long enough does not give close enough contact between cement, water, and aggregate. If concrete is not protected from intense heat from the sun while it is setting, some of the water near the surfaces will be evaporated before it can be assimilated by the cement.

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JUST NATURAL GASOLINE

Proration Engineers Must Prepare Way for Sound Future Production Program

By MITCHELL TUCKER

The recognition of the need for skilled technicians in the formulation of future proration plans on a more equitable and scientific basis has prompted the proration engineer's rapid rise to prominence and responsibility. Many operating companies are now looking to the newest of petroleum's specialized professions for guidance in the handling of their proration problems.

In a few words the A.P.I. Topical Committee on Allocation of Production in 1933 set forth the ultimate goal of proration under ideal conditions:

"Equity between tracts in a prorated pool can be procured by assigning to each tract an allowable which bears the same relationship to the total allowable of the pool as the remaining recoverable reserves under the tract bear to the recoverable reserves of the pool as a whole."

This objective has remained as a guidepost for all subsequent work toward a proper and acceptable means of allocating withdrawals from prorated pools. Production was first restricted on purely a voluntary or cooperative basis, but as the need for curtailment became greater and greater, proration schemes of many sorts were tried with varying degrees of success. Certain of these plans closely approached an equitable distribution, while others were established with complete disregard for the equities or property rights involved. These experiences lead to the present-day conclusion that in order for a proration plan to be equitably applied, it must also be scientifically applied, and the services of the proration engineer are being solicited to make this possible.

Qualifications

The equitable allocation of production to the various tracts within a pool involves so many factors of purely a scientific nature that engineers entrusted with the work must possess broad qualifications and experiences along these lines. At the very outset, they should be thoroughly grounded in the various sciences of petroleum. The injection of the productivity, acreage, permeability, sand thickness and bottom-hole pressure factors in suggested allocation formulas, and the necessity of correctly compensating for low gas-oil and water-oil ratios, and volumetric withdrawals, have all worked to establish the need for such qualified engineers.

The importance of a bottom-hole pressure factor in the determination of well allowables is sometimes overlooked. An ideal allocation formula could be defined as one which would keep the subsurface pressures in all wells in a field equal at a given datum. If it were possible to bring about this condition, operators would be assured that no oil was crossing the property lines, since a differential pressure is necessary to move the oil in the reservoir. However, the use of a bottom-hole pressure factor in allocation formulas may not always be desirable. In this case the efficiency of the allocation method could be checked periodically by a bottom-hole pressure survey. If the variations in bottom-hole pressures are found to be too great, the formula should be adjusted.

Some far-looking men of the industry anticipate the time when oil, gas, and possibly reservoir energy in a pool can be estimated with reasonable accuracy, allocated to the owners of the oil and gas rights in their just proportion, and prorated on the basis of their interest in all of them. Obviously, if any condition so ideal as this is to ever obtain, the engineers assigned to the formulation of future proration plans must be thoroughly conversant with all physical and chemical conditions of the various types of reservoirs, and an expert in handling the accepted methods of estimating recoverable petroleum reserves.

Many companies recognize the need for specially trained engineers to correlate production practices to most economically produce oil in prorated fields. These men are also charged with formulating methods for accurately estimating oil reserves. They have a major task to perform and should be encouraged.

In as much as proration was imposed upon the industry for reasons largely of an economic nature, it follows that anyone engaged in the work should have a rather comprehensive knowledge of the economic structure of the petroleum industry as a whole, and follow its changes from time to time. Often what might appear to be equity between tracts within a certain pool would not give equity as between other pools or areas, for obvious economic reasons. The proration engineer should also be enough of an economist to analyze the financial position of pools or leases under consideration when formulating any plan for the distribution of their allowed production. Great care must be used in all proration set-ups to give small wells, or heavy water wells, a sufficient minimum allowable to permit their profitable operation to as low a point as possible. This is needed, of course, to prevent the premature abandonment of wells, with the resultant loss of production which might otherwise have been profitably produced. All allocation or distribution formulas thus far advanced have made provision for wells which necessarily fall within the minimum allowable class.

Discharging sediment from flood water treating system in Alluwe district, Oklahoma

Involves Many Details

A problem so vital to property rights as that of equitably distributing shares in the petroleum and energy within an oil-containing reservoir certainly entails a full appreciation of all the legal rules and principles involved.

A working knowledge of the adjective law of evidence is essential if the proration engineer is to intelligently prepare and present his case before the proper authoritative body. The proration records of past years contain many instances where well-organized presentment of evidence has won a point, even though it was irrespective of the equities involved, when perhaps if the opposition had been well coordinated a different decision would have been reached.

A knowledge of constitutional law with respect to the delegation of powers is also necessary in determining the scope and limitations of the various conservation boards or commissions established through the delegation of legislative or executive powers.

A complete understanding of the property rights which a leaseholder has as a community interest in the pool as a whole is needed. These may be either by virtue of the police powers of the state, or by the well-established rights which one owner has in the land of another. Some courts have gone so far as to hold that the state has a definite property interest in unrecovered oil, due to the revenue which they are entitled therefrom. It has long been recognized in most oil-producing states that the police powers of that state extend to the conservation of its natural resources. Here is afforded the authority to regulate and prescribe methods for the extraction of oil and gas from a common pool. (1) to protect the public interest against waste of natural resources, or (2) to insure just distribution of property between the various tenants in common. The fact that each leaseholder has a common interest in the energy of the entire pool has been placed beyond dispute by the courts of many oil-producing states, basing their decision upon the common law maxim that every person shall be required to so use his property as to not injure the rights of others. Surely the proration engineer would be at a great handicap in dealing with problems so closely allied to the property rights of each leaseholder in prorated pools if he did not have a full conception of them and their effectual workings.

It goes without saying, of course, that an intimate knowledge of the statutes pertaining to con-

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servation and prevention of waste are also essential.

Duties

The duties of the proration engineer may properly be divided into two broad classifications. The first group would comprise the routine responsibilities of reviewing and analyzing all prorated properties at regular intervals to insure that each well is receiving its just share in the ratable takings of the pool, and that the property rights in the common energy of the pool are being protected in all cases.

For the purpose of this preliminary outline it is not necessary to discuss all of the engineer's routine but important responsibilities. A few examples will be sufficient to show the increased reliance that has been placed on them since their need in the industry was recognized.

It would properly be their duty to point out to the producing department any apparent deficiencies in production which might be corrected. A close check on decline of flowing wells is necessary to insure that artificial stimulation is applied before loss in allowable is suffered. On the other hand, the proration engineer may save his company many dollars by preventing the installation of producing equipment before it is actually needed.

It is clearly the engineer's responsibility to see that the proration plan adopted in any field is conformable with the type of reservoir present, and is so applied that the pool will receive the maximum benefits from either the hydrostatic, volumetric, or capillary control, as the case may be.

Associated with this work would be the preparation and presentment of all petitions for adjustment or changes in the manner of pool allotment, and assistance in the opposition of any proposed plans of distribution which do not appear to be proper in all respects.

The second classification of the proration engineer's responsibilities, and equally as important as those aforementioned, are of a research or development nature. The statement that scientific control of oil production has made many advancements in recent years needs no substantiation. The point that needs to be stressed is that the benefits from these advancements can only be partially realized when employed under an improper restrictive agreement. Here is provided a strong incentive to the proration engineer to remove another of the stumbling-blocks to more efficient production and conservation of energy.

Even with the advancements in proper scientific control, there remains the present inability, in some cases, to ascribe definite values to the factors in the several apparently equitable proration formulas, and any discussion of a proration engineer's duties would hardly be complete should it ignore the pressing need for developing additional knowledge in this direction.

Possibilities

It is needless to review the many well-recognized benefits which will follow the application of proper scientific proration measures, but in discussing the scope of this growing vocation, an enumeration of some of their more attractive possibilities would be well in order.

1. If and when proration procedures are devised which will remain practical and equitable throughout at least the flush period of the pool, innumerable opportunities for savings in development and operating costs will be presented. Such possibilities are afforded in the completion of wells, casing programs, well spacing, flow strings, methods of producing, types of producing equipment, pipe line capacities, waste water disposal systems, tankage, fluctuations in size of field personnel, etc.

2. There still remains some difference of opinion as to the effects of open-flow potential tests upon the formation and the extent of its ultimate productivity, although the harmful results therefrom are generally recognized. Additional scientific knowledge along this line will be well received by the industry.

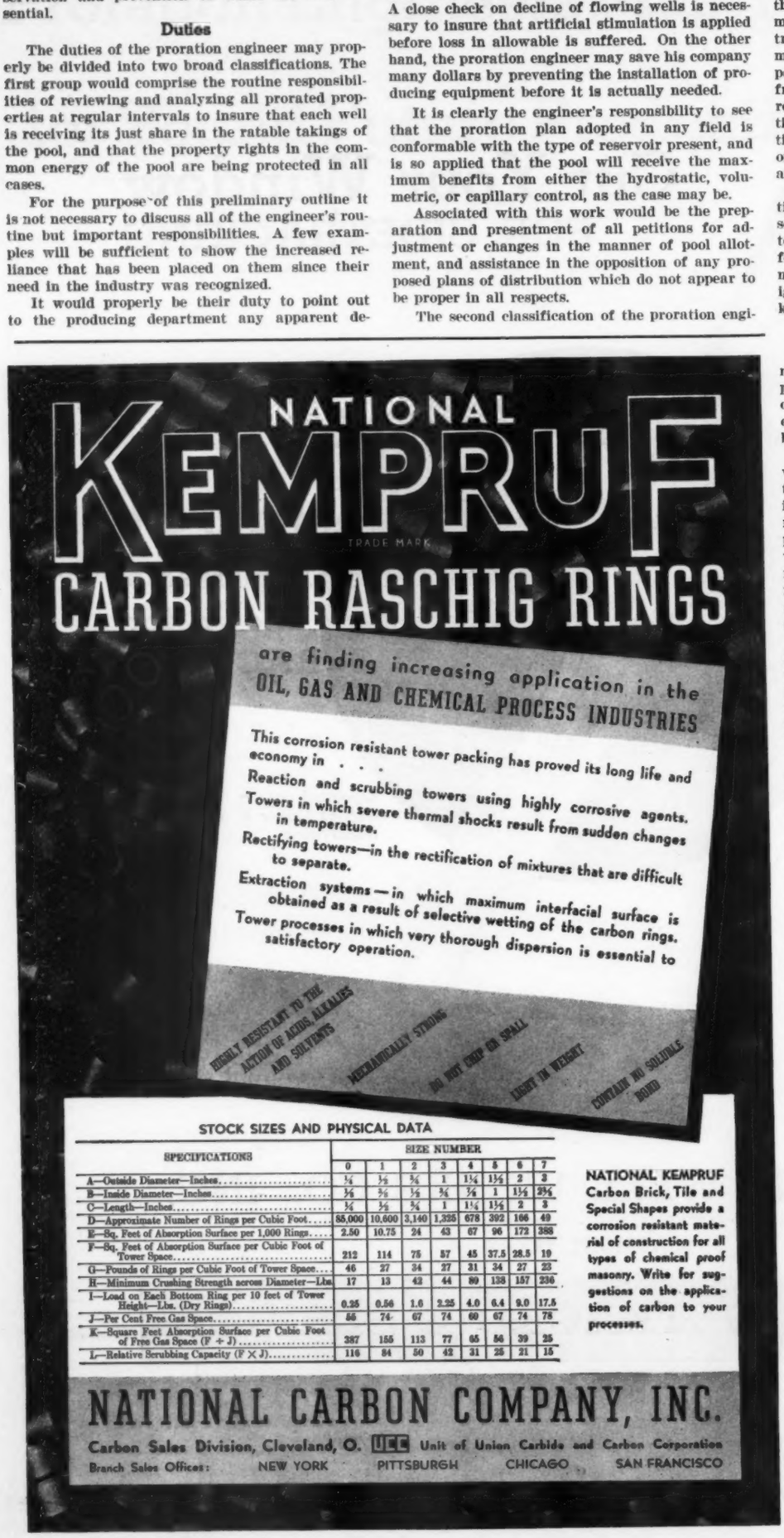
3. Developments in the correct distribution or use of reservoir energy are comparatively new, but the extent of their benefits and possibilities are without limitation. Examples of such developments may include reservoir studies to determine the most efficient rates of withdrawal, bottom-hole sampling, or subsurface static and flowing pressures, with the large amount of valuable and workable information obtainable. In certain pools it has been contended that the allowed production should conform to the amount which can be produced at the most efficient rate of flow, as determined by gas-oil ratio curves or other similar data. This ideal condition might be applicable if the effect upon the allocation of other pools or states can be reconciled.

4. The possibilities of drainage suits instigated by royalty owners will be minimized by the application of proper scientific proration. Even should such actions be brought, the fact that the best-known engineering procedures were employed on the properties under question would greatly assist in establishing the needed defense.

5. Proration must be considered as synonymous with cooperation, and in this direction the proration engineer has many possibilities. Close harmony between operating companies and regulatory commissions is highly desirable. The growing tendency of operating companies to relinquish granted allowables which leases are incapable of making, so that the artificial shortages may be removed and the allocated production placed elsewhere, is an excellent example of such cooperation. Farsighted operators are recognizing that by so doing they will ultimately share in a greater over-all allowed production from all of their properties, and also profit by the intangible or psychological benefits which will logically follow.

6. By proper and continued efforts, certain of the present regulatory statutes which permit or encourage inequities may be repealed. If it is necessary to substitute another in its place, it can be formulated in the light of all the scientific knowledge obtainable.

7. The impending danger of increased gov-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SPECIFICATIONS	SIZE NUMBER							
	0	1	2	3	4	5	6	7
A—Outside Diameter—Inches	½	½	⅝	1	1¼	1½	2	3
B—Inside Diameter—Inches	⅛	⅜	⅛	¾	⅞	1	1½	2¾
C—Length—Inches	½	½	¾	1	1¼	1½	2	3
D—Approximate Number of Rings per Cubic Foot	85,000	10,600	3,140	1,325	678	392	166	49
E—Sq. Feet of Absorption Surface per 1,000 Rings	2.50	10.75	24	43	67	96	172	388
F—Sq. Feet of Absorption Surface per Cubic Foot of Tower Space	212	114	75	57	45	37.5	28.5	19
G—Pounds of Rings per Cubic Foot of Tower Space	46	27	34	27	31	34	27	23
H—Minimum Crushing Strength across Diameter—Lbs.	17	13	42	44	89	138	157	236
I—Load on Each Bottom Ring per 10 feet of Tower Height—Lbs. (Dry Rings)	0.25	0.56	1.6	2.25	4.0	6.4	9.0	17.5
J—Per Cent Free Gas Space	55	74	67	74	69	67	74	78
K—Square Feet Absorption Surface per Cubic Foot of Free Gas Space (F ÷ J)	387	155	113	77	65	56	39	25
L—Relative Scrubbing Capacity (F × J)	116	84	50	42	31	25	21	15

ernmental control in the industry, always purported to be for the conservation of mineral resources, is forever present. Developments in scientific proration measures, acceptable to all concerned, will do much to remove the possibility of further intervention on the part of state and federal governments.

Conclusions

Many eminent writers on the subject of proration list the three greatest barriers to equitable distribution as legislative, economic and psychological. It is quite clear how developments and progress in this field of engineering endeavor will serve to mitigate all the present obstacles, or perhaps remove them altogether. Even the inflexible oil and gas laws will yield to conform with scientific advancements when they are definitely established. The far-reaching results from properly applied proration will certainly be reflected in the economic picture of the industry. Increased confidence in the applicability of engineering principles to proration will play a large part in breaking down the psychological barriers which are often mentioned as an excuse for the failure of previous proration plans.

Although the present-day proration problems are many and varied, their ultimate solution appears to be well within the capabilities of the qualified proration engineer.

Crude Is Recovered by Texas Operators from Tank Bottoms

Since the inception of proration in the oil fields of Texas, with oil being retained under the ground in its natural reservoir instead of being brought to the surface and stored in tanks. Pipe line companies have been erecting fewer large steel storage tanks and in some abandoned areas have been cutting down 55's and 80's to make into smaller lease tanks.

Some twenty 55,000-bbl. steel tanks on the Hoffman tank farm at Ranger, in Eastland County, have been sold to a salvage company, and other tanks in this area have been sold or are being bid on prior to cutting down and moving off the farms. But prior to cutting down the tanks they have to be cleaned of all the oil and basic sediment, the greater part of which is being circulated through reclaiming plants in order to obtain as much pipe line oil from the sludge as possible. This work is giving employment to a number of crews throughout the Ranger and West Texas district, paying for itself many times over, and also preventing waste, as the sludge would only be run into slush pits and burned if not reclaimed through these plants.

The Sinclair Prairie Marketing Co. has undertaken a recovery program at Ranger, there being around 140,000 bbls. of such "tank bottoms" to be treated and reclaimed. The company expects to obtain at least 70 per cent crude oil recovery from the bottoms. Such a recovery figure has been arrived at after treating and reclaiming some 12,000 bbls. of "bottoms" in the Desdemona field.

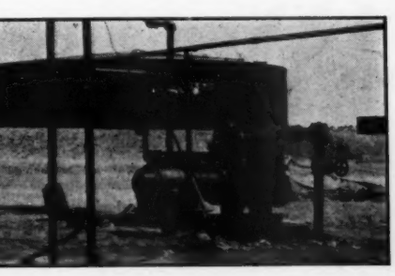
The company uses second-hand equipment for this work, including six boilers, fuel oil and water tanks, pipes, pumps and connections being brought from warehouses or leases to make up the plant, which is more or less inexpensive. Two 35-horsepower boilers are used for steam-power for the pumps and four other boilers, 45 and 60 horsepower each, are used for circulating the oil through to heating zones before it is run into the central 55,000-bbl. receiving tank where the water settles to the bottom and the oil is drained off the top, the water being taken off the bottom of the tank.

As the oil coming from the other tanks is run through the boilers and heated, it is then pumped into this central reservoir through the coil which extends down into the tank.

The company is using a treating chemical to help treat out the water. This preparation is injected into the oil stream at the pump, which is located near the boilers to pump the oil from the tanks into the boilers then up into the central reservoir.

This reclaiming work is carried on in about the same manner in other fields, with many different grades and types of crude oil coming under the process. But different temperatures have to be resorted to in treating the different oils. In treating oil from tanks in the Mexia field in Limestone County, it had to be heated to 160° F. and the oil in the Desdemona field had to be heated to 190 degrees. As work is just starting on the Ranger crude it is not known to what temperature the oil has to be raised in order to get the best results in the reclaiming work. The Ranger crude, as taken from the wells, tests 36 and 40 degrees gravity, and the reclaiming of this tank bottom oil, heating and treating, will bring it back to near the original condition and gravity of the crude as when it was produced, that is, the crude that is salvaged.

About six weeks were consumed in rigging up the reclaiming plant, heating and treating 12,000 bbls. of "bottoms" and tearing down the plant ready for moving from the Desdemona field, which gives some idea as to the time required in carrying out these operations.



Pump used in transferring oil from tank shown in picture through circulating boilers. The treating fluid is added to the oil at this pump, the two going to the tank

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Use of Recording Pressure Gauges in Drill Stem Tests

By R. S. CHRISTIE
Amerada Petroleum Corp., Fort Worth, Tex.

A drill stem test may be made to obtain indications of the potentialities of a suspected oil or gas sand, to test for water shutoff after cementing pipe, or to determine the casing point in a known producing horizon. The drill stem test is obtained by running, on the bottom of the drill pipe, a valve which can be opened and closed from the surface. All the formations in the hole are packed off with the exception of that section of the hole to be tested. The drill pipe is run in the hole with the testing tool valve closed. After the packer has been set the valve is opened, and liquid or gas at the testing point enters the drill pipe. In all cases the success of the test depends on the successful operation of the testing tool. Whether or not the valve functions properly can be quite positively determined on the surface for shallower wells but becomes less positive with increasing depth. It is important to obtain as much information as possible on each test.

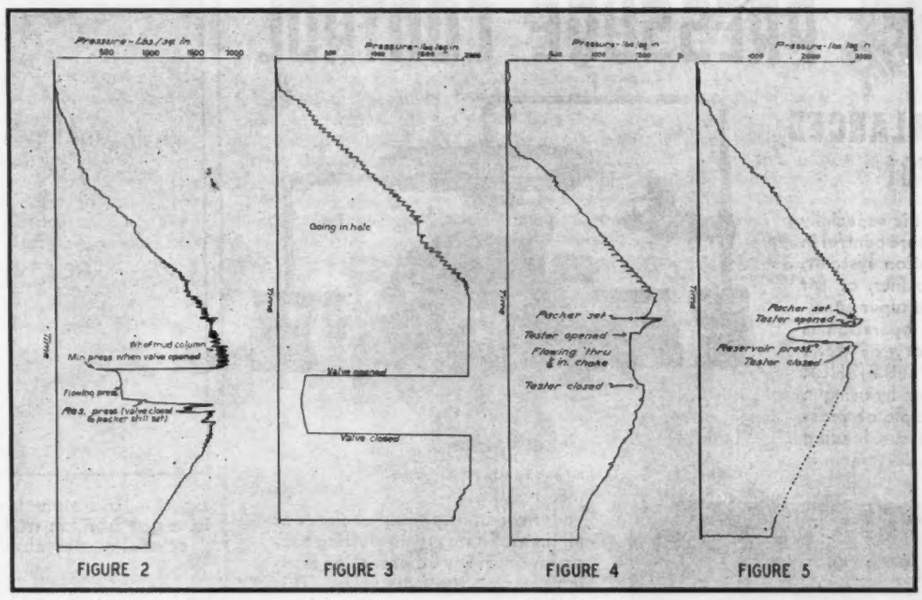

Fig. 2—Pressure changes in a drill stem test of a gas sand. Fig. 3—Pressure changes in a drill stem test of an oil sand. Fig. 4—Drill stem test of a water sand at 3,270 feet. Calculated flow 60 barrels per hour. Fig. 5—Drill stem test of a water sand at 5,704 feet and check for mud condition

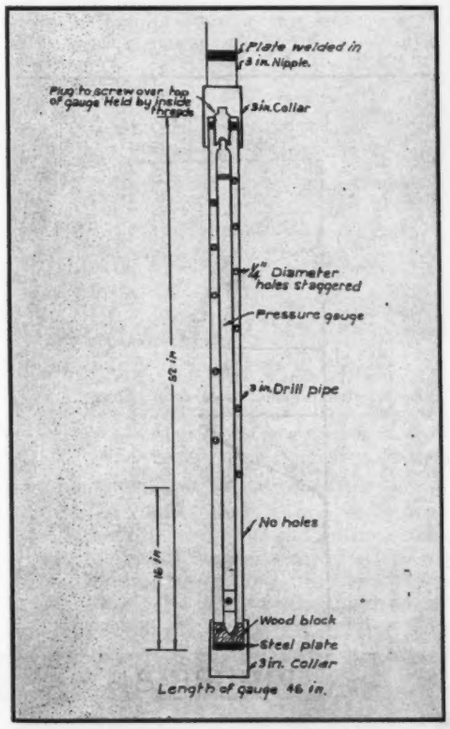

Fig. A—Container for recording pressure gauge for use in drill stem tests

In a test for water shutoff there is little or no open hole below the casing in the well close to the point of testing and consequently small hazard. On the other hand a formation test or casing point test is usually made with several hundred feet of open hole with resultant danger of sticking the drill pipe by setting cuttings or caving. If it becomes necessary to run the test several times, the walls may be weakened and cause trouble when drilling is resumed.

A record of the changes in pressure below the testing tool will make more positive the information ordinarily obtained by such a test and frequently give information that could not otherwise be obtained. A recording pressure gauge can be placed in a special container which can be a part of the anchor of the testing tool. Figure "A" shows one type of container.

A.P.I.—Interpretation of records secured by drill stem tests presented before production division during mid-year meeting.

The primary purpose of a drill stem test is to determine whether a given formation contains gas, oil, or water. The test may give negative results in the face of other positive indications. This is particularly true in deep holes, as it is not always possible to ascertain whether the packer is holding and the valve functioning properly. When the valve is opened and the fluid does not lower appreciably at the top of the hole it is assumed the test is successful, but this is not always true because the fluid may drop due to leaky tool joints because of loss into some formation or fluctuate due to gas or air pockets, and yet the packer may have held and the valve opened to give a test. To eliminate any doubt as to the mechanical operations of the tester a recording pressure gauge below the tester will record differences in pressures occasioned by the operation of the tester. Figure 1 shows how the tester functioned in a well at a depth of 5,685 feet. The test was for a water shutoff. Without the pressure record the test would have been interpreted as a successful shutoff. A subsequent test proved that water was not shut off. Figure 1-A shows a test taken on a well at a depth of 3,463 feet. At the end of about five minutes the full weight of the drill pipe was on the packer. The fluid dropped about 30 feet. During the total time of 33 minutes there was no change in the fluid level until the valve was closed. From the irregularity of the chart and from indications on the surface it is reasonable to believe the bottom choke was partially plugged. With a small opening and a high differential pressure when the valve is opened, such a result may be obtained.

An analysis of the pressures recorded shows

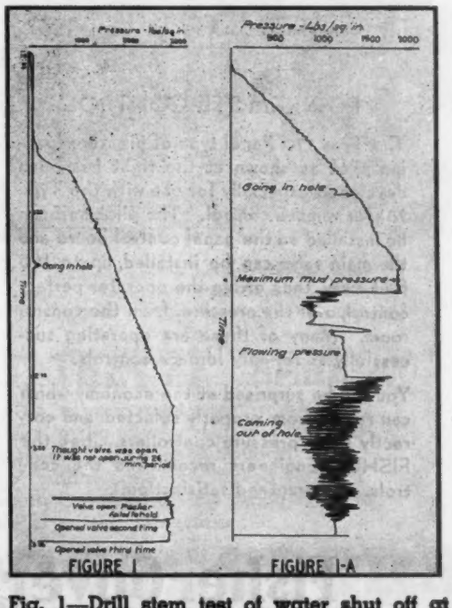

Fig. 1—Drill stem test of water shut off at 5,685 feet. The testing tool valve failed to open. Fig. 1-A—Effect on pressure of partially plugged perforations on choke

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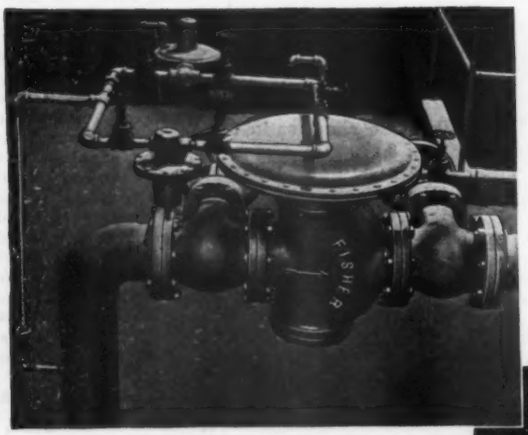

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whether the testing tool functioned properly and indicates other important factors. It is possible to obtain with some degree of accuracy the capacity of the well to produce, whether it be gas,

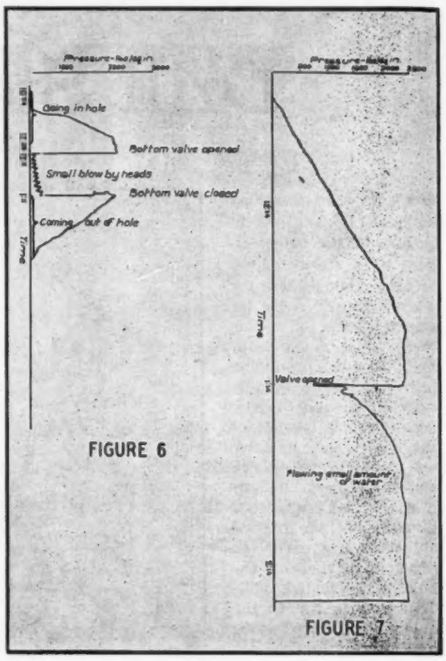


Fig. 6—Drill stem test after perforating pipe in a gas horizon at 4,005 feet. Fig. 7—Unsuccessful water shut off test at 5,685 feet

oil, or water. In a gas well the open flow can be determined from the drop in pressure and the rate of flow. Figure 2 is a pressure chart taken in a well which produced gas at the rate of 5,400,000 feet per day with a drop in pressure of 262 pounds, from a reservoir pressure of 983 pounds. The computed open flow capacity of the sand is about 20,000,000 feet of gas per day. The static reservoir pressure was obtained by not unseating the packer for two minutes after the bottom valve was closed which was sufficient time for a pressure reading. A static reservoir pressure obtained at this stage of completion will be more nearly the original formation pressure than any subsequent pressure.

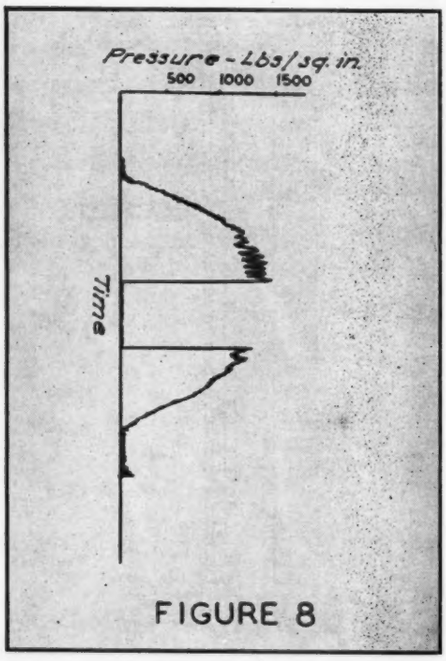


Fig. 8 — Drill stem test showing pressure changes when not flowing into drill pipe

A similar method can also be applied to an oil well, but sufficient tests have not as yet been obtained to determine dependability. Figure 3 presents data obtained on a drill stem test taken at a depth of 4,418 feet. With the tester valve open 20 minutes 6⅝-inch drill pipe filled 900 feet with oil and 180 feet with drilling mud. On this basis the calculated flow was 102 bbls. per hour with a bottom-hole pressure of approximately 300 pounds. A production test after completion obtained approximately 60 bbls. an hour with a bottom-hole pressure of 1,150 pounds and a low gas-oil ratio. Figure 4 shows the results of a drill stem test that produced water. The test was taken at a depth of 3,270 feet. The decrease in pressure between the making up of the last stand of drill pipe and the setting of the packer may have been caused by the formation taking fluid. From the volume of fluid in the drill pipe the estimated flow was approximately 60 bbls. per hour. The bottom-hole pressure while flowing at this rate was 1,424 pounds which is sufficient pressure for an artesian well.

While running the gauge a pressure gradient of the drilling fluid is also obtained. A study of this gradient may show a section of mud that is gas cut and much lighter than the remainder of the column. Further testing may prove this to be caused by a gas or oil bearing formation which has been passed up. Even though no other formation is obtained, a pressure gradient gives a graphic picture of the condition of the mud in the hole. From such a picture it may be found advisable to condition the mud before further testing or drilling ahead. In Figure 5 the measured hydrostatic head was 2,915 pounds. The hydrostatic head calculated from the weight of the mud was 2,930 pounds which proved the entire column of mud was in good condition. Occasionally mud is heavier than necessary but tests of formation pressure are more likely to prove that for safety the mud should be heavier.

Many wells are completed by landing pipe on bottom, then perforating opposite the various shows encountered while drilling. A drill stem test of the perforation may frequently be quicker and more economical than bailing. The pressure record of such a test shown in Figure 6 will aid in interpretation of the test. When the bottom valve was opened the pressure dropped to almost zero and only small gas blows by heads occurred during the hour the valve was open. It was known from a previous drill stem test that the potential of the sand was much greater than was obtained by the later test. Several additional perforations and tests were required before sufficient formation was gained to permit proper completion of the well.

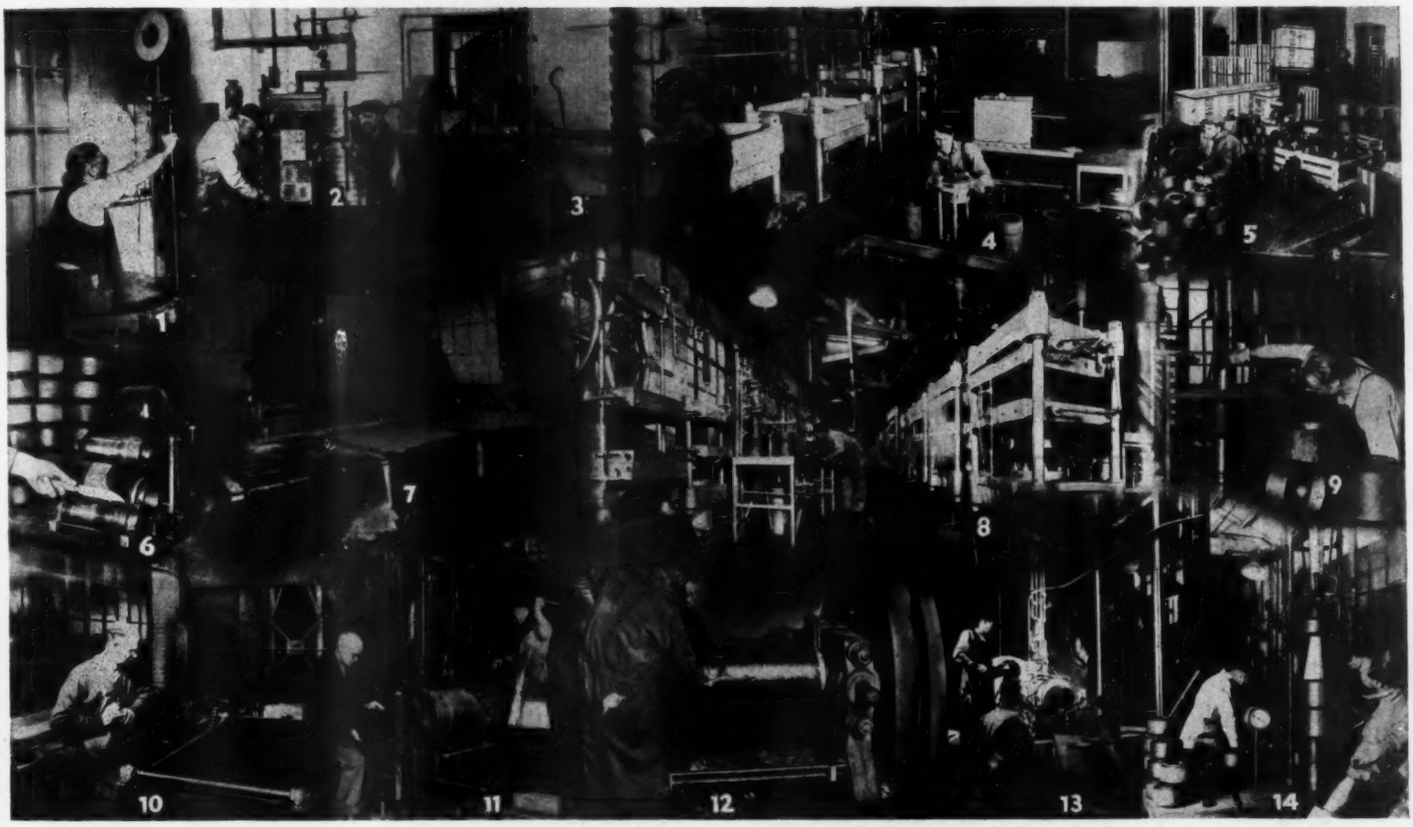
The usual method of testing a cement job is by bailing the hole and allowing it to stand to determine if fluid is entering the hole. Frequently a drill stem test can be substituted. This method will prove whether a shutoff is obtained and often at less expense. The pressure gauge will show the amount and rate at which the water is coming into the hole if the shutoff job is unsuccessful.

Figure 7 is a pressure record of an unsuccessful water shutoff. The hole was loaded with water, the drill pipe run and upon opening the tester valve, approximately 30 minutes was required to fill the drill stem up to the top and flow a small amount of water.

Figure 8 is a pressure chart on a drill stem test of a successful shutoff. When pulled out the drill pipe contained nothing but 5 feet of mud in the bottom.

(Conclusions partly deleted)

A drill stem is usually a satisfactory method of testing a formation to determine the advisability of setting pipe. In addition to the principal value for using a pressure gauge, other facts can be determined which may be of equal importance. The approximate potential can be estimated, the reservoir pressure measured, and the condition of the drilling fluid determined. Additional applications are determining the success of perforation jobs, water shutoff jobs, and in testing for casing seats.



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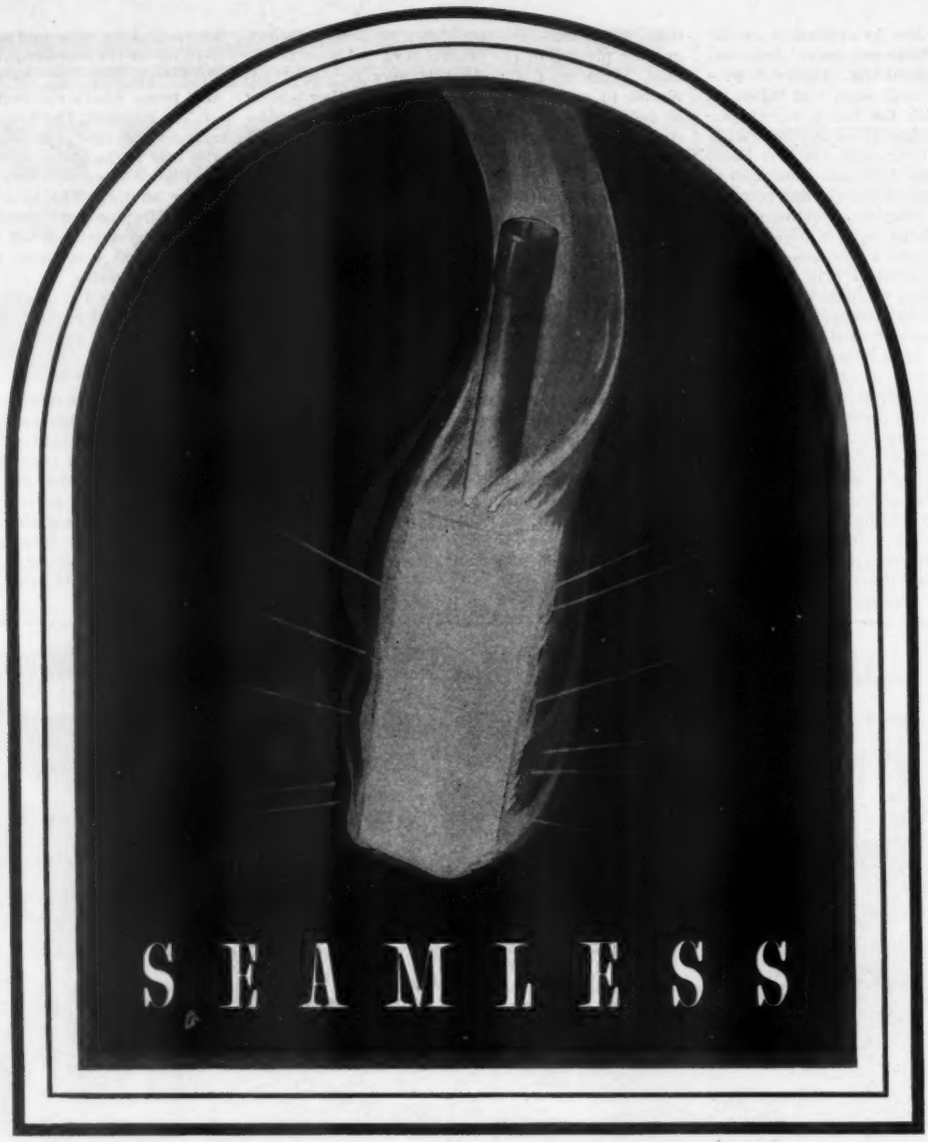

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Liquefied Petroleum Gases

By MARTIN J. CONWAY
Fuel Engineer, Lukens Steel Co.

After nearly 40 years of service, natural gas holds a strong place in public and industrial use and is an important source of supply of the heavier hydrocarbon gases, propane and butane.

The saturated hydrocarbons which are gaseous at normal temperatures and pressures are methane, ethane, propane, and butane.

Liquefied petroleum gases have all the advantages of the older gaseous fuels: efficiency, cleanliness, simplicity of utilization, and controllability, and may be handled and stored similarly to oil.

One of the most important operations in the development of the liquefied petroleum gas industry is transportation between the source of supply and the consumer. Until recently, the producer and consumer have been separated by considerable distance, since the chief producing plants are located principally in the active oil fields while the potential markets extend to those sections far removed from these points. This means that large quantities of liquid must be transported over long distances by safe and economical means.

Prior to 1927, nearly all of these liquid gases were transported in metal cylinders, so that only those consumers who were within reasonable distance of the source of supply could economically use the fuels. Since then the development of special tank cars, motor trucks, and boat and pipe line facilities, plus the more widespread production by refineries, have helped to account for the tremendous increase in annual consumption up to a total of 63,000,000 gallons in the year 1935.

The greatest increase in the utilization of these gases is taking place in the industrial and domestic fields as shown in Table 1.

TABLE 1—MARKETED PRODUCTION OF LIQUEFIED PETROLEUM GAS

Year	Bottled gas	Industrial and misc.	Gas manufacturing	Total gallons per year
1922	.....	.....	.....	232,641
1923	.....	.....	.....	276,863
1924	.....	.....	.....	376,488
1925	.....	.....	.....	403,674
1926	.....	.....	.....	465,085
1927	.....	.....	.....	1,091,005
1928	2,500,000	400,000	1,500,000	4,523,899
1929	5,900,000	1,500,000	2,500,000	9,930,964
1930	11,800,000	2,200,000	4,000,000	18,017,347
1931	15,294,648	7,171,636	6,303,242	28,769,576
1932	16,244,103	8,167,194	9,703,470	34,114,767
1933	16,635,588	12,987,095	8,318,325	38,921,005
1934	17,681,000	24,202,000	6,290,000	48,173,000
*1935	20,700,000	36,000,000	6,300,000	63,000,000

*Year estimated.

Propane fired heat treating department in roller bearing plant

TABLE 2—COMBUSTION DATA

	Cu. ft. required per cu. foot of gas or vapor for combustion		Products of combustion in cu. ft. formed by burning one cubic foot			Pounds required for combustion of one pound of gas or vapor		Products of combustion in pounds from burning one pound gas or vapor			Flame temp., °F.
	Air	Oxygen	Carbon dioxide	Water	Nitrogen	Air	Oxygen	Carbon dioxide	Water	Nitrogen	
Ethane	16.738	3.5	2.0	3.0	13.238	16.132	3.728	2.929	1.799	12.404	3,670
Propane	23.912	5.0	3.0	4.0	18.912	15.712	3.631	2.996	1.636	12.081	3,710
Butane	31.086	6.5	4.0	5.0	24.586	15.495	3.581	3.030	1.551	11.914	3,735
Isobutane	31.086	6 5	4.0	5.0	24.586	15.495	3.581	3.030	1.551	11.914	3,735

Liquefied gas produced from natural sources is almost unlimited in quantity. Its distribution from these sources has been, up to recently, somewhat limited by their geographical location with reference to the consuming areas.

Now that the minor difficulties in manufacture have been overcome by refineries, this source of supply for liquefied gas products is becoming increasingly important, and propane is the gas that is increasing in proportion to the total marketed production of liquefied petroleum gas, as it is not possible to utilize this material in gasoline as we know it today.

In the case of butane, commercial operations have been started during the past year on the conversion of butane into gasoline and it is safe to assume that it will become more widely used as an ingredient of motor fuel, so that its amount and availability for other uses in large quantities is problematical.

The production of propane from refinery gases will tend to eliminate the problem of distribution which has been a great factor in the industry.

The distribution of liquefied petroleum gases for industrial uses has in the past been limited largely to shipment in tank cars of approximately 10,000 gallons capacity. The development of high tensile steels has, however, given impetus to the use of the tank truck and it is now becoming common practice to haul relatively small quantities over a considerable distance in this manner. On the Pacific Coast, truck and trailer units are hauling both propane and butane approximately 300 miles from the source of supply.

I can but give an indication of the various domestic and industrial uses to which these liquefied petroleum gases can be adapted.

These gases may be used to form a community service to domestic consumers by transportation in bulk from the place where they are produced and then vaporized at a central plant for distribution. In this service, the gas can be distributed in the undiluted form or diluted with air before distribution.

For small communities where the higher capital cost of a gas manufacturing plant cannot be justified, this process has great economic possibilities. Both butane and propane can also be used in place of oil gas to enrich water gas where this is normally made to meet fluctuating loads, and in this sense their constant heat value and easy operation make them very convenient to use.

At quite a few estates there have been installed 1,350-gallon propane capacity tanks, taking 1,000 gallon deliveries, for providing gas to operate gas boilers, unit space heaters, gas ranges, clothes driers, mangles, and other gas-fired appliances which are found at the large estates. I know of one hotel in a neighboring town which uses this gas for its kitchen stoves, hot plates, coffee urns; in fact, every place where gas is used, including

Eighty-ton lead melting furnace fired with propane at 20 pounds pressure

the electrically operated gas pilot light for the oil-burning heating plant.

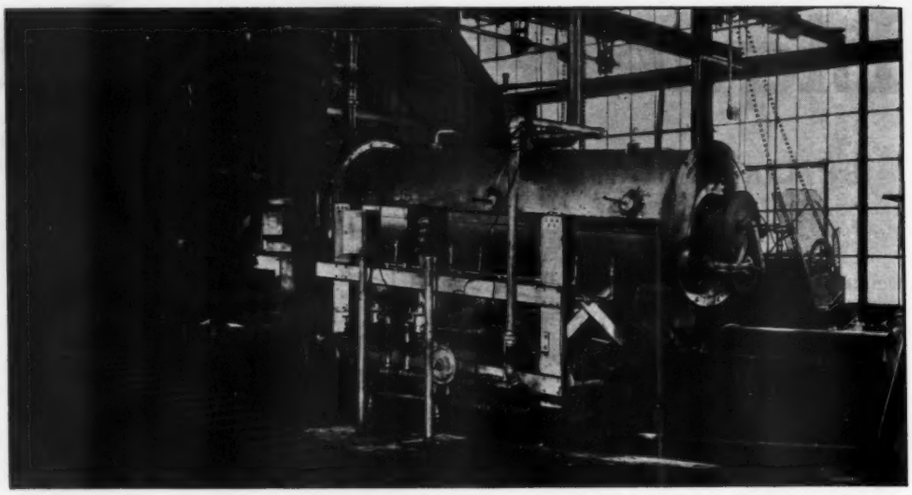
Although the flame temperature of liquefied petroleum gas is lower than that of acetylene, this does not preclude its use for cutting of steel and brazing metals and alloys of low melting point such as brass and bronze, the welding of aluminum and lead burning. It is extensively used in foundries for cutting risers from castings and is used in some steel plants for scarfing, and the cutting of slabs of various thickness up to 26 inches. In fact, the lower flame temperature is in some ways a positive advantage as it serves to prevent the burning of the work in unskilled hands and produces sharper edges. Combustion data are shown in Table 2.

Those industrial appliances which show a noticeable increase are direct fired air heating for plant space heating, metal cutting, atmospheric control, particularly in bright and clean annealing and in gas carburizing. Metal heating and heat treating furnaces of practically every general kind known are being fired with this fuel; in fact it can be applied to practically any service where conventional city or natural gas is used.

These advantages make liquefied petroleum gas an ideal fuel for industrial uses where artificial or natural gas is not available or where the supply is limited or of high cost. The low cost of liquefied petroleum gas places this fuel on economic equality with low priced gaseous fuels. The fact that the same equipment can be used for both artificial or natural gases and liquefied petroleum gas makes this fuel ideal for standby.

In addition, it has been applied as fuel to internal combustion engines of various kinds and purposes, including a 60-ton locomotive in use at one of the steel companies.

Operating data show several advantages from these fuels when used in internal combustion engines due to their high antiknock value and the uniform manifold distribution obtainable by their use in the gaseous form.



Rotary hardening furnace for small washers. Heat is supplied by propane as fuel

Other uses, such as the production of hydrogen by catalysis of butane, the enrichment of blast furnace gas with liquid petroleum gases are subjects for papers in themselves.

Liquefied petroleum gas is competitive with all other types of fuel and still has all of the inherent advantages of gas without sacrificing the principle advantage of other fuels, which is chiefly one of availability. Liquefied petroleum gas is now being sold for approximately 5 cents to 10 cents per gallon, f.o.b. the source of supply. These prices vary somewhat with the volume, quantity, and quality desired. Very little fluctuation in the price is expected as every refinery is a potential manufacturer and supplier of liquefied petroleum gases. This situation, coupled with the competitive position of liquefied petroleum gas in relation to other fuels, will prevent the price from seeking much higher levels than those now in effect.

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5. Photographs courtesy Phillips Petroleum Co.

Aircraft Engineers to Meet

The first technical meeting on production problems ever held by the aircraft industry will take place next October in Los Angeles, Calif., under the sponsorship of the S.A.E.

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PROBLEMS FROM READERS

Edited by T. F. Smiley

Shooting Probably Does not Produce Large Cavity at Bottom of Well

In a recent issue of The Oil and Gas Journal you told something about what happens in a well hole when a shot is exploded in it. One thing that was not made clear was whether or not the shot is supposed to make a big cavity at the bottom of the hole. I always have supposed this was what happened, but I would like to know whether this is known definitely.—E. F. E.

Belief that explosion of a nitroglycerin charge always, or even commonly, produces a great hole at the bottom of the well has been pretty generally discarded in recent years. Stories have been told of bailers and tools having been lost in such holes without interference with subsequent pumping operations, and there is no reason for questioning these stories. The fact remains that petroleum engineers are in virtual agreement such cavities are unusual. It frequently has been shown when one of the common types of oil-sand reamers has been run into a well following explosion of a large charge of nitroglycerin that the hole is only slightly larger than the bit used in drilling. There may be some shattering and cracking of the sand for a short distance back from the walls of the hole, but probably the direction of the force is toward the surface, as in most cases this affords the line of least resistance. The force of the explosion in an upward course would tend to lift and separate the strata, giving a better opportunity for oil and gas to flow under less resistance along the bedding planes into the well than would be the case if all the oil and gas movement were through the sand pores into the well.

If, however, there are channels and openings in the sand near the well, as often is the case when limestone is the reservoir rock, then part of the force of the explosion may result in a breaking through from the well into these openings and the bringing in of a gusher.

Solidified nitroglycerin usually is slower in its action and its disruptive range wider. No data are available to show the disruptive range of any explosive in any specific stratum.

Character of Oil Sand May Change Between Wells in the Same Field

The subject of oil sands is of interest to me and sometimes it is rather puzzling. Taking the wells on a lease where I am working for example, there are some of these wells on an exact line that differ greatly in production, when according to calculations they should be just about the same. Drillers have told me it is because the sand is different, but that explanation is not very clear, when the production is from exactly the same formation. Can you make this point a little clearer for me?—S. S. L.

Presumably the driller is referring to the absence of uniformity of a sand throughout its whole extent in any given area. Some fields are regarded as having virtual uniformity of sand, the Bradford field in Pennsylvania, for instance; but even in the Bradford field variations are found. It is pointed out by L. L. Brundred in one of his papers on methods of increasing recovery that an oil sand may be loose and hardly more consolidated than a beach sand, like some of those found in California and Texas, or it may be as hard and compact as building stone, such as those found in the Appalachian fields. The sand grains may be almost microscopic in size, or as large as pebbles, and they may be angular (stream-bed condition) or well rounded (beach or shore-line condition), of uniform size or variegated. The sand may be clean and free of silty material, mica, or natural cement, or the interspaces may be almost entirely occupied by such material. The porosity may be over 40 per cent or less than 10 per cent. All these differences influence the yield of oil, the quantity retained after the exhaustion of gas, and the movements through the sands of water, oil, gas, or air.

An "oil sand" consists of many strata of different textures and characteristics. It is, in reality, a group of sands frequently separated by more or less impervious shale layers. These breaks, or shale partings, may be so thin that they are not noticed in drilling, yet they will separate locally one layer from the other as effectively as though they were several feet thick.

In all strata it is much more difficult for liquids or gases to move across the bedding from one layer into another than along the bedding. Examinations of the outcrops of sandstones disclose these facts, while, in drilling new wells or deepening old wells, it is frequently found that a difference of a few inches in depth will make a tremendous difference in the capacity of a well, showing that the drill has passed through a tight part of the sand or a shale parting into a more open layer or section.

Similarly, an oil sand or one of its layers is never of the same texture throughout the area of the field. A well at one location will find a good production, while at the next location the sand may be so tight that it will yield practically no oil, or the sand may be entirely replaced by shale. In same places, the sand layers are evenly stratified. In other places the layers are cross bedded and irregular in thickness and texture. These variations may occur within short distances and with no regularity, so that porous streaks through the formation will cause liquids or gases to travel between wells in the most erratic ways.

WHY THEY CALLED IT

Dogleg

The term "dogleg," used to designate a sharp bend or turn, did not originate in the oil field, but has become well fixed in its vernacular. In all cases there is a real or fancied resemblance to the hind legs of a dog. Sudden deflections from vertical in drilling operations, for example, are called doglegs. These crooks in the well hole may be so pronounced as to cause trouble in running casing and later in producing oil through the tubing. Directed drilling, which affords a means of completing wells within specific zones or a predetermined space underground, makes a long-radius bend to reach its objective, and thus is devoid of doglegs. A still earlier oil-field use of the term became current when short bends or kinks appeared in the wire drilling-cable.

California Operators Making Wider Use of Geophysical Instruments

Can you tell me if there has been the same wide use of geophysical instruments in California that there has been in the Gulf Coast territory and have they been as successful in leading up to the opening of new fields? Which is used the most, the torsion balance, the seismograph or the magnetometer?—E. F. E.

The last few years have seen a steadily increasing use of geophysical exploration in California. All of the large companies in that state are using this method for obtaining basic data or for confirmation of geologists' reports. Geophysical work has been restricted pretty much to the San Joaquin Valley, Los Angeles Basin, Sacramento Valley, Santa Maria Valley and Ventura Basin. About 80 per cent of all geophysical work done in California in 1934 was in the San Joaquin Valley area. The rest was scattered through the other districts named. It cannot be said at this time that use of geophysical instruments has attained the same wide use that has characterized them in the Gulf Coast area.

The Rio Bravo, or Stevens, field recently opened in Kern County, is the first oil field discovered in California by geophysical exploration. Several dry gas fields have been opened through seismological surveys.

Virtually all geophysical work done in California during 1934 and 1935 was of the reflection seismograph type. No torsion balances were operated during 1935, according to available information, and as far as can be ascertained the last magnetometer survey was made in 1934. During the latter part of 1934 one short survey was made using the resistivity method, but from that time on California's geophysical work seems to have been restricted to the reflection seismograph. Most operators in California were slow in the general application of the reflection seismograph and it was not until the summer of 1934 that the effectiveness of that method in solving California geological problems came to be fully appreciated. In December, 1934, there were 15 reflection seismograph crews operating in the state and by June, 1935, the number had increased to 21.

The reflection seismograph is especially adaptable out on the floor of the San Joaquin Basin because in this area, which is removed from the influence of alluvial fans, the water table is generally found at comparatively shallow depths and excellent reflection records can be obtained. Practically all areas of the state of interest to the petroleum geologist can be effectively surveyed with the reflection seismograph because even though the results obtained in mountainous areas are not wholly satisfactory, prospectors usually are not particularly interested in areas containing rocks which would prevent satisfactory work.

Although geophysical work in California up to the present has not been comparable with the results obtained in some other areas, it is believed that with additional experience and aggressive exploration work on the part of operators valuable results will become more pronounced.

In California areas where the geologic section contains only one very hard stratum overlain by a comparatively soft formation the problem of correlating reflection records is relatively simple. It has been found in some cases, however, that the geologic section contains many strata which act as good reflectors of wave energy and the problem of correlating is made rather difficult. The complexity of the problem increases in proportion to the number of reflecting beds and their degree of uniformity in reflecting efficiency.

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QUESTIONS ON TECHNOLOGY

By Charles K. Francis, Ph.D., Technical Editor

Corrosion of Special Bearings Probably Caused by Several Factors

The writer has before him a special alloy bearing removed from a car in which nothing but a solvent refined oil had been used. It seems to be the contention of the automobile people that the corrosion of this type of bearing is due entirely to the oil, while the various oil companies maintain that the fault lies in the fact that the bearing material is not adapted to the service. We have been informed that refiners are now adding lead to their solvent refined oil to control this corrosion. We would like to know what causes solvent refined oils to corrode these bearings and what is the remedy?—M. O. C.

The question may be very briefly answered by stating that the evidence known to the metallurgical experts and petroleum technologists suggests that the fault lies with both industries.

The major problem of the petroleum refiner has been the elimination of impurities from the several petroleum products that would tend to cause corrosion of metals when they were put into service. Sulfur is generally recognized as an objectionable element in this respect, so many of the standard specifications stipulate very low permissible quantities of this substance. The refiner has perfected the purification methods to such a degree that the gasolines and lubricating oils now contain little more than a trace of sulfur. However, it appears that there are additional substances that may be present in a lubricating oil which will contribute to the corrosion of metals under the conditions of use in the automobile engine.

It was natural to use babbitt metal in the bearings of the automobile of a few years ago because it had long been so satisfactorily utilized in other engines and so long as the car was driven at comparatively low speeds this material was satisfactory, but with the advent of the higher driving speeds, and therefore higher temperatures, babbitt metal became unsuitable. At high temperatures the alloy had a tendency to flow out of place, causing a burned out bearing to be a common experience on a long automobile trip. Sometimes there was evidence of fatigue and frequently small pieces of the bearing would be found in the engine. This condition led the automobile manufacturer to look for harder bearing metals, such as the alloys of nickel, cadmium, copper, silver, tin, lead and others, which were found to be satisfactory with practically all oils under reasonable temperature conditions. However, when cars were operated where the atmospheric temperatures were exceptionally high, or driven at speeds exceeding 70 miles per hour, corrosion difficulties developed. It has been observed that the temperature of the oil in the crankcase in these instances was above 300° F.; when the temperature was below 300° F. the extent of the corrosion was not of a serious degree.

Just what chemical changes take place when a solvent refined or any lubricating oil is burned is not known. We do know that the combustion of a very simple hydrocarbon results in the formation of water and carbon dioxide, the combination of these two is carbonic acid; a very weak acid but corrosive to metals. When a small quantity of the complex hydrocarbons of lubricating oil seep into the combustion chamber, as it undoubtedly does at high temperature operation, the decomposition following probably causes the formation of organic acids even more corrosive than the carbonic acid produced. It will be necessary to know the kind of acids, with the degree of activity, produced by the oxidation of different lubricating oils before it will be possible to determine the influence of combustion.

Five oils of different origin, and treated by different methods, were examined by M. Fairlie, as reported in The Oil and Gas Journal, before and after 50 hours running in an engine under varying conditions. These oils were: 1. Highly solvent treated Pennsylvania; 2. Mildly solvent treated Pennsylvania; 3. Conventional non-solvent treated Pennsylvania; 4. Acid treated Mid-Continent; 5. Regular Gulf Coast. These were all S.A.E. 30 oils which tested before use 0.015 neutralization value or number. After the run of 50 hours with a crankcase temperature of 220° F. the neutralization number increased as follows: 1. To 1.281; 2. To 1.54; 3. To 1.49; 4. To 1.21; 5. To 1.938. Another test with an oil similar to No. 3 but with a crankcase temperature of 320° F., the neutralization number of the used oil was found to be 2.384. Neutralization number means the number of milligrams, or parts per 1,000, of potassium hydroxide required to neutralize 1 gram of the material; it is therefore a convenient means for indicating total acid content. While the quantities of acids, or acid-like substances, produced in these oils are very small, they are sufficient to show that no one class of oils can be selected as the source of the trouble and they also suggest that some form of corrosive material is formed under the temperature conditions by all ordinary oils.

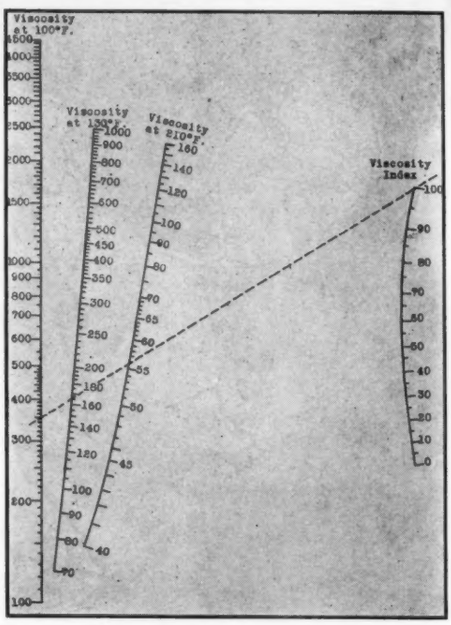
There are two possible remedies to correct, or at least reduce, the corrosion problem as it involves lubricating oil and the automobile engine. It appears that the more some lubricating stocks are refined, either by extensive treating or solvent refining, the greater is the tendency of the oil to produce corrosive products when burned. It may be true that in the absence of other oxidizable impurities, the acid formed in the fully refined lubricating oil has nothing to prevent it from attacking the bearing metal. In the case of a certain type oil, such as that produced in the Gulf Coast area, which has not been solvent extracted, containing a relatively high percentage of low viscosity index constituents, some shellac-like material is deposited on the bearing surface to act as a shield against the attack of the acids produced. The refiner may have gone too far in the refining of the oil and possibly an oil not so fully refined would prove more serviceable. It may be that some inhibiting material could be added to the oil by the refiner to serve in a similar way to the inhibitor which is added to the acid when acidizing a well to reduce corrosion of the tubing and casing, also when cleaning castings, or on the order of tetraethyl lead, which is added to gasoline to reduce the tendency of the fuel to produce a combustion knock. It appears that the motor manufacturer may solve the problem much easier and cheaper by providing an ample cooling system for the lubricating oil and engine block or by selecting a servicable alloy for the bearings.

Some compounds are being marketed under the claim that they will prevent corrosion from any oil in any car, but lead compounds do not appear to be used in this manner. One of the research laboratories makes use of a test for estimating the extent of corrosion at high temperatures, the results being expressed in terms of lead oleate added before the oil becomes corrosive. Lead oleate, if added in large enough quantities, will make any oil corrosive under these conditions of high temperature. Then the oil that permits the highest addition of lead is, in this one respect, the best oil.

Reference: M. Fairlie, The Laboratory Engine Testing of Motor Lubricants, The Oil and Gas Journal, March 19, 1936, page 114.

Chart for Finding Viscosity Index From Two Viscosities

Is there an easy and convenient method for finding viscosity index from viscosities at 100° F. and 210° F? If there is such a method will you kindly show what would be the V.I. of an oil testing 350 at 100° F. and 56 at 210° F.? —F. T. C.



Viscosity Index Chart

The most convenient method for finding the Viscosity Index of a lubricating oil, when the viscosities at 100° and 210° are known, is a chart. There are several forms available, the Newell Chart, mentioned by Davis, Lapeyrouse and Dean in the original article in The Oil and Gas Journal, is an example.

Arranging the viscosities 350 at 100° and 56 at 210° and then connecting these with a straight edge, the broken line falls at 100 Viscosity Index.

References: Davis, Lapeyrouse and Dean, The Oil and Gas Journal, May 31, 1932, p. 92. Newell, Ind. Eng. Chem., 23, 843, 1931.

SPECIFICATIONS

U.G.I. GAS OIL

A petroleum distillate is desired meeting the following:

	Per cent
Coke content, max.	0.5
Sulfur, total, max.	0.5
Distillate obtained between 400° and 700° F., min.	85.0

The U. G. I. specification originated with the United Gas Improvement Company for the purpose of regulating the quality of gas oil suitable for the enrichment of artificial gas.

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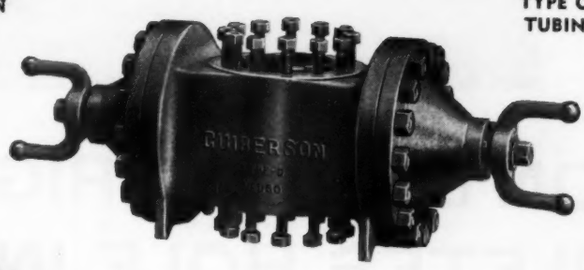
GUIBERSON High-Pressure Oil Savers, especially Types "C2" and "D", are constructed for working tubing under high pressures and for use in conjunction with drilling of oil formation under pressure. All GUIBERSON oil savers have rubbers which are of oil-resisting compound, allowing passage of both tubing and drill collars with no leakage, yet having long life, and are of patented construction.

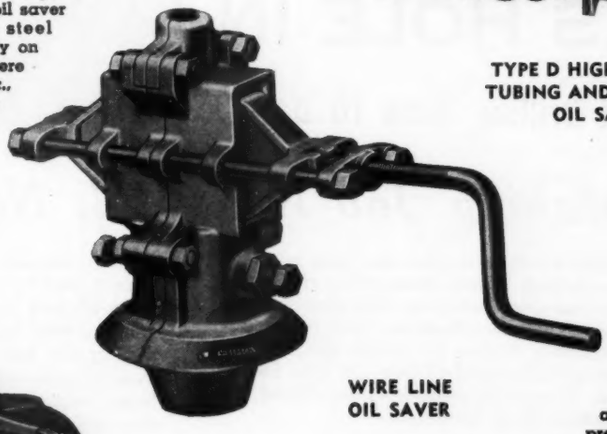
The GUIBERSON Type "B" Tubing Oil Saver is primarily a tubing oil saver constructed with split type steel housing, facilitating assembly on well. It is recommended where tubing catchers, packers, etc., are run where pressures do not warrant use of Type "C2" or Type "D". Shop-tested for 800 lbs. hydrostatic pressure.

The GUIBERSON "C2" Tubing and Drill Pipe Oil Saver, here shown, is primarily used for drilling in under pressure. It is of one-piece, all-steel construction. Tested for 1200 lbs. hydrostatic pressure.



TYPE D HIGH-PRESSURE TUBING AND DRILL PIPE OIL SAVER

The GUIBERSON Type "D" Tubing and Drill Pipe Oil Saver, here shown, has recently been added to the line and is used both for working tubing and drilling in under pressure. It is of one-piece, all-steel housing. Tested for 3000 lbs. hydrostatic pressure.



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Contract was let 4:30 P.M. April 20. Location stake driven 11 P.M. Cellars, derrick and pit completed 22nd. and rigging up started. Well spudded-in midnight April 23. Drilled 360 feet, set and cemented casing 2 P.M. 24th. 48 hours for cement to set. Second string casing set and cemented 3300 feet May 5. 3 days for cement to set. Drilling-in started May 8, and by 11 P.M. the following day the well was completed. Thus, 19 days was the total time required for fully completing the job—from location stake to swabbing-in—three days ahead of time lease expired, and less than half the time ordinarily required for the same operation in this area . . . *and again it was proved that it takes a "Wilson" for maximum speed and dependability.*

This New Mexico record is typical of what is happening in Texas, Oklahoma, Kansas, Colorado, Michigan and foreign fields. It will pay you to investigate!

. . . Speaking of Portability

. . . this record-breaking Wilson Rig used for drilling Sun Oil Co., Stuart No. 1 was dismantled and moved 25 miles to Kermit, Texas; rigged up and was drilling again in 31 hours. Gentlemen, that's portability!!

OPERATORS USING WILSON RIGS IN WEST TEXAS AND NEW MEXICO

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Wilson MANUFACTURING COMPANY

WILSON PORTABLE RIGS AND OIL FIELD WINCHES

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Exclusive California, Rocky Mountain and Eastern States and Export Distributor:
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FIELD OPERATIONS

Summarizing the Week's Developments

Rodessa, in Caddo Parish, Louisiana, and Cass County, Texas, is not the fearsome field it was a few weeks ago. Completions are coming in conservatively and some wells are showing water; while the tremendous waste of gas is not helping the field to enjoy a long life. Some operators are having difficulty in making their 275-barrel allowable without the use of a large volume of gas.

KANSAS

A new pool was opened in Rush County, Kansas, at National Refining Co. No. 1 Werth, section 7-16-18w, which produced 444 barrels of oil in 24 hours. In the new Hauschild pool in southern Rice County another good Chat producer was brought in at Darby Petroleum Corp. No. 2 Johnson, which flowed 2,160 barrels in 24 hours.

OKLAHOMA

Sunray Oil Co. and Phillips Petroleum Co. No. 1 State, east of the Governor's mansion and the first well on state-owned land in the Oklahoma City field, made a potential of 11,263 barrels, but operators drilled deeper and were to test again. Marathon Oil Co. No. 4 Marchand, deep pay discovery well in the Cement field of Caddo County, was opened and flowed 1,077½ barrels in 24 hours, with 71,000,000 feet of gas. Sinclair Prairie Oil Co. No. 1 Dills, in the Crescent field, flowed 75 barrels in three minutes and was shut in. It previously had flowed 1,000 barrels in 1 hour and 45 minutes, and was the biggest initial producer in the field.

EASTERN TEXAS

Fifty-eight wells were completed in the East Texas field with an average production of 43 barrels per hour per well. Two wells were added to the Talco field in northeastern Texas, one in the Talco townsite. Neither was a big well. Talco now has 9 producing wells and 25 drilling. A well in Harrison County, extreme eastern part of Texas started at 60 barrels per hour after an acid treatment. It is the first oil well in the county.

WEST TEXAS

A Gaines County wildcat in West Texas is being closely observed because of oil saturation in a lime core. It is on a big block and already location has been made for another test on the structure.

EASTERN FIELDS

Oriskany sand in Potter County, Pennsylvania, yielded a 21,000,000-foot gasser, while in West Virginia new wells in the same sand are keeping that state among the leaders as a gas producer.

GULF COAST

A pool has been opened in the Green Lake area in Galveston County, Texas Gulf Coast. The discovery well flowed 379 barrels on various sized chokes in 24 hours. A feature of the new pool is that it is producing from what Gulf Coast operators call a shallow sand, 3,610-20 feet. Wharton County is promised a new pool 2 miles from the recently opened Withers pool.

COLORADO

Down on the New Mexico border, in Archuleta County, Colorado, an estimated 1,000-barrel well was reported, producing from Dakota sand. Three other good wells have been completed in the same field.

MONTANA

Five new oil wells were added to the Cut Bank field in Montana. Incidentally Cut Bank and Kevin-Sunburst were subjected to a 10-cent cut in the price of crude.

NEW MEXICO

Lea County, New Mexico, experienced a lull in completed work but a very considerable increase in new work in the past week. Lea County is considered as a Mid-Continent field as its production competes directly with that of other Oklahoma, Kansas, Texas, Louisiana and Arkansas fields, and the growth of the field is causing worry in some sources.

ARKANSAS

The Permian zone in the old Smackover field in Arkansas where a big gas well producing 53 gravity distillate was recently brought in is being further explored by six tests and within 10 days the worth of the new area should be more definitely known.

MICHIGAN

Michigan is growing as a producer of natural gas. Eight wells brought in in the past week produced an initial aggregating 314,000,000 feet, the largest having produced 69,000,000 feet, a new Michigan record. New oil wells caused a small increase in the average daily production of the state.

CALIFORNIA

A new dry gas field in Solano County, California, a little northeast of San Francisco, has been opened by the Amerada Petroleum Corp. with a 20,000,000-foot well. The discovery well in the Stevens pool, recently opened by Shell Oil Co. in Kern County, is holding up satisfactorily. The gas is rich in gasoline and the oil has a 90 per cent gasoline content, together with 10 per cent gas oil.

Highlights on Outstanding Fields

(Week ending June 13)

FIELD—	Rigs up	Wells drlg.	Weekly oil completions	Initial prod.	Total No. oil wells	Daily av. prod.
TEXAS						
Anahuac	1	8	3	1,100	86	8,075
Hastings	1	6	2	1,350	78	6,670
Loma Novia	3	14	11	4,609	485	13,600
Seven Sisters	4	8	8	2,970	202	12,950
Saxet Heights	3	17	4	530	106	7,450
Saxet	4	22	3	1,270	133	10,210
East Texas	73	144	58	*2,500	20,713	439,754
OKLAHOMA						
Oklahoma City	14	102	13	39,852	1,017	151,275
Fitts	7	60	5	*2,199	369	50,700
Burbank-S. Burbank	4	9	8	3,849	2,143	23,400
KANSAS						
Ellis County	7	23	0	0	23	1,143
Reno County	1	24	5	2,636	278	13,276
Rice County	2	53	4	3,443	466	33,509
Russell County	8	53	1	545	420	18,574
NEW MEXICO						
Lea County	26	105	7	7,407	814	64,950
LOUISIANA—TEXAS						
Rodessa, La.	7	44	3	2,928	197	54,410
Rodessa, Tex.	1	10	3	3,312	21	4,165
Gillis, La.	2	6	4	1,950	45	13,900
Tepetate, La.	0	3	2	660	18	3,900
MICHIGAN						
Porter-Yost	7	16	4	1,430	381	17,487
Crystal-Montcalm	3	17	3	650	128	6,500

*Average duration of initial production 60 minutes.

*Initial gauges of 2 to 5 hours' duration.

Stocks of Crude Petroleum in United States

(United States Bureau of Mines)

GRADE OF CRUDE OIL:	May 30 1936	May 23 1936	June 1 1935
Pennsylvania grade	4,280,000	4,236,000	4,732,000
Other Appalachian	871,000	911,000	994,000
Lima-N. E. Indiana-Michigan	1,329,000	1,356,000	1,350,000
Illinois-S. W. Indiana	10,325,000	10,346,000	11,604,000
N. Louisiana and Arkansas	10,545,000	10,482,000	10,392,000
West Texas and S. E. New Mexico	28,675,000	28,869,000	31,050,000
East Texas	21,384,000	21,386,000	30,586,000
Other Mid-Continent	127,005,000	126,722,000	147,846,000
Gulf Coast	28,456,000	28,549,000	23,224,000
Rocky Mountain	26,524,000	26,591,000	27,383,000
California	34,789,000	34,839,000	30,868,000
Foreign	2,937,000	3,138,000	4,114,000
Total reported weekly	297,120,000	297,425,000	324,143,000
Estimate of unreported stocks	16,900,000	16,900,000	14,000,000
Total stocks	314,020,000	314,325,000	338,143,000

Completions in All Fields

(Week ending June 13)

	Oil	Gas	Dry	Tl.
Penna. Grade Fields	47	13	9	69
Lima Field	0	0	0	0
Central Ohio	2	7	4	13
Indiana	0	0	0	0
Illinois	0	0	0	0
Michigan	12	8	4	24
Kentucky	0	0	0	0
Kansas	22	0	7	29
Oklahoma	43	2	14	59
North Cent. Texas	29	1	33	63
West Texas	32	0	7	39
Texas Panhandle	7	2	0	9
East Central Texas	4	0	2	6
East Texas	58	0	1	59
East Texas border	4	0	0	4
Gulf Coast Texas	12	2	5	19
Southwest Texas	43	4	8	55
Total Texas	189	9	56	254

	Oil	Gas	Dry	Tl.
North Louisiana	7	4	1	12
Gulf Coast Louisiana	7	0	1	8
Total Louisiana	14	4	2	20
Arkansas	1	0	0	1
Montana	8	0	2	10
Wyoming	2	0	0	2
Colorado	1	0	0	1
New Mexico	7	0	2	9
Utah	0	0	0	0
California	19	2	12	33
Total United States	367	45	112	524
Total previous wk.	356	31	108	495
Difference	11	14	4	29

Michigan Field Report

By
PAUL A. ELLIOTT

EIGHT GAS WELLS PRODUCE 314,000,000 FEET INITIALLY

MUSKEGON, Mich., June 15.—Every phase of the oil and gas industry in Michigan showed greater activity and success last week than in any corresponding period in many months. In addition to a new record week in the size as well as the aggregate potential daily open flow of gassers, there were definite signs of recovery in oil completions, a branch which has caused much concern for several months.

Because of May's extra day, however, the month's production showed an increase of 34,109 bbls. from 1,025,852 in April to 1,059,961 last month. The daily average for May was 34,192 compared with 34,195 in April.

Gassers

The sensation of the past week, however, as for the past two months, was the completion of eight gassers with an aggregate open flow capacity of about 314,000,000 feet daily, or more than half the May month's all-time record of 597,000,000 feet daily.

Three giant gassers were completed in one day, the largest setting a new Michigan record with an open flow exceeding 69,000,000 feet daily, another equaling the former record of 67,500,000 feet and the third making 63,000,000 feet for a total of nearly 200,000,000 feet.

Three other gassers ranging from 16,000,000 to 56,000,000 feet daily comprised a total of more than 310,000,000 feet added to the output of the state's largest field in Millbrook-Hinton-Belvidere, or Tri-Townships field of Mecosta and Montcalm Counties.

Tri-Townships Field

Fletcher & Leman's No. 2 O. Eccles, C NW SW section 2-12n-7w, Belvidere Township, Montcalm County, was the all-time record breaker which blew the tools out of the hole at 1,272 feet with a flow gauged at 69,052,000 feet a day. Michigan Stray sands were topped at 1,239 feet, the drill passing through 33 feet of pay.

Same operator's No. 1 Eccles, C NE SE section 4, Belvidere, made 67,500,000 feet. The third big gasser was Roy F. Ide No. 1 Vern Wood, C SW SW section 3, same township, which gauged 63,000,000 feet. The former struck the pay from 1,271 to 1,304 feet, and the latter drilled through pay from 1,276 to 1,304 feet after topping the Michigan Stray sands at 1,273 feet.

Hyatt & Norton's No. 2 Bellows estate, C SE SW section 10, Belvidere, gauged an open flow of 56,000,000 feet from Michigan sand from 1,227 to 1,254 feet.

Wolverine Natural Gas Co. No. 1 William J. Richardson and others, C SW NE section 3, flowed at the rate of 39,400,000 feet daily in the same township, while Columbia Oil & Gas Co. No. 2 Kelson Arnett, C SE SE section 23-13n-8w, Hinton Township, made over 16,000,000 feet 13 feet in the Michigan Stray sands at 1,316 feet.

Mitchell Oil & Gas Co. No. 1 Seth Mitchell, C NW NE section 27-13n-10w, Aetna Township, Mecosta County, near Morley, showed an open flow of about 800,000 feet.

In addition to these wells in or near the Tri-Townships field, Gordon Oil Co. struck a flow of about 2,000,000 feet of Michigan Stray gas in the No. 1 Robert B. Shaver, C SE NW section 4-10n-4w, New Haven Township, Gratiot County, where several other gassers ranging up to 10,000,000 feet daily have been completed since the nearby Crystal oil field was opened. The new Shaver gasser was to be drilled several feet deeper in pay encountered at about 930 feet.

Two other tests, Crystal Oil & Gas Co., Inc., B No. 3 Benjamin Shaver, C SE SE section 4, New Haven, and Hirzel-Leland Development Corp. No. 1 Julius Plank, C SW SE section 33-11n-4w, Sumner Township, also were preparing to drill into the Michigan Stray sands this week.

An interesting feature of the new record well was its production through a 6⅝-inch casing rather than 8-inch, the size used for most of Michigan's big gassers of recent months.

Midland County

Not only the largest but also the greatest number of new oil wells were written into the record in two Midland County Townships—Jasper and Porter.

Acid treatment brought daily initial totaling 1,280 bbls. in three Pure Oil Co. wells. Largest was the D No. 3 Laura E. Root, C S half NE SE section 2-13n-2w, Jaseph Township. It made about 1,000 bbls. a day after acid at 3,437 feet. Pure No. 2 Reed-Alspaugh, C S half NW SE section 2, same township, made 150 bbls. daily at 3,436 feet, while same company's C No. 2 Iva E. Bond, C S half SE SE section 1, Jasper, was rated at 130 bbls. daily at 3,442 feet.

Pure No. 23 Mina Narmore, SE SW NW section 15-13n-1w, Porter Township, also made 150 bbls. in 24 hours as another Dundee producer at 3,416 feet.

Crystal-Montcalm

Three new producers added 650 bbls. initial to the Crystal-Montcalm field, two in Ferris Township and one in Crystal.

Largest was Pure's B No. 1 Claude Mangus, SE SE SW section 36-11n-5w, Ferris Township, which came in at the rate of 500 bbls. a day but was held back to 15 bbls. an hour, or 360 a day.

After several weeks of testing, Burnstein Oil & Gas Co. No. 7 Keel, section 35, Ferris, was reported good for 40 bbls. a day. United Producers Oil & Royalty Co. No. 3 Ernest and Martha Conner, NE SW NW section 26, Ferris, filled up about 1,800 feet with oil and was tubed for acid treatment expected to complete this week.

Midland Petrol & Gas Co. No. 3 L. B. Smeed, SE SW NW section 2-10n-5w, Crystal Township, was estimated good for 250 bbls. a day.

Isabella County

Thompson Brothers, Inc., reported flush production of 200 bbls. during the first 24 hours after acid treatment of No. 1 William Smith, NW NW NE section 3-14n-3w, Chippewa Township, Isabella County, from the upper Traverse formation. The output declined rapidly, however, and pumping equipment was being installed.

Ogemaw County

Five Ogemaw County wells added about 550 bbls. initial to the output of this field.

Sun Oil Co. No. 3 Department of Conservation, SE SE NE section 1-21n-2e, Horton Township, made about 90 bbls. after a shot at 2,626 feet.

The other four were in the West Branch Township area, Ogemaw Crude Oil Co. No. 1 Gussman, SW SE SE section 19-22n-2e, making 100 bbls. at 2,775 feet; Weber Oil Co. B No. 2 August Reinhart, SE SE SE section 27, making 110 bbls. a day at 2,680 feet; Consolidated Petroleum Producers, Inc., No. 3 Evan Crow, SW SW NE section 36, producing 200 bbls. after acid treatment at 2,605 feet, and Weber Oil Co. No. 1 Harry C. Crow, NW SE NW section 35, good for 40 bbls. before a shot at 2,678 feet.

Five others in three townships of the county were completing in the Dundee.

Wildcat Shows

Encouraging shows of gas, oil or both were encountered in the Berea and Dundee in Midland, Ionia and Saginaw County tests.

Brehm and Hollman struck a Berea show in the No. 1 James estate, NW SW NW section 20-15n-2w, Geneva Township, Midland County, but were drilling on to Traverse or Dundee.

Terry Dale Michigan Corp. No. 1 Edgar A. Tew, SW SW NE section 12-6n-7w, Berlin Township, Ionia County wildcat, was delayed in testing a Dundee gas show by a fishing job at about 2,860 feet. Frank Lyons also was completing his No. 1 Charles Geiger, SW NW NW section 29-8n-8w, Otisco Township, same county.

B. J. Skinner suspended drilling operations to run casing before drilling farther into the Dundee in the No. 1 Alger Sheldon and others, SE SE SW section 11-10n-3e, St. Charles Township, Saginaw County, in which a show of gas was reported at 2,880 feet.

Dr. Virgil R. D. Kirkham was drilling more than 180 feet in the Dundee in his No. 1 Boyce Farm Co., SW SW NW section 24-14n-7e, Wisner Township, Tuscola County, with about 200 feet of oil in the hole.

Dry Holes

St. Louis Pipe & Supply Co. finally plugged and abandoned the No. 1 John Yadovack, SE NW SE section 13-10n-2e, Brant Township, Saginaw County, which struck water about 85 feet in the Dundee and stopped drilling at 2,961 feet many weeks ago.

Jetter Oil Co. No. 1 C. McCracken, NW SE SE section 6-9n-5w, Bloomer Township, Montcalm County, was definitely dry at 3,160 feet with a hole full of water.

Durham and Jones abandoned No. 1 Delos A. Towle, SE SE NW section 15-11n-8w, Pine Township, Montcalm County wildcat, which struck water at 3,331 feet, in the Dundee.

T. F. Caldwell, Inc., No. 1 Edgar Parker, SE SE SE section 21-18n-2w, Gladwin County, found bottom water in the Dundee and drilling was suspended at more than 4,000 feet.

Hopes for commercial production were virtually abandoned in C. W. Collins No. 1 Tomlin, SW NW SW section 27-11n-4w, Sumner Township, Gratiot County, when drilling reached 25 feet in the Dundee without a show. The hole was about 3,230 feet deep but not yet abandoned. The Collins is about 3 miles south of McPherson Co. No. 1 Sharrar, section 11, Sumner Township, recently completed dry.

T. F. Caldwell, Inc., No. 1 H. McDonagh, NW NW SW section 19-10n-5e, Taymouth Township, Saginaw County, was in about the same predicament drilling 70 feet in the Dundee at about 3,025 feet without a show of gas or oil.

New Locations

Despite the disappointments, however, operators are planning many new wildcat tests in the search for new oil pools.

Negotiations were in progress for several tests in the vicinity of Chesaning, Saginaw County, where Frank Roush, of Mount Pleasant, has leased a block of several hundred acres.

Glacial Oil & Gas Co. is planning to test several thousand acres in Missaukee County.

The Ruben H. Yeitzey lease in section 26, New Haven Township, will be tested by the McClanahan Oil Co. and Associated Petroleum Corp.

H. E. Bell and others have announced they will drill three wildcat tests, one in section 28, Emerson

(Continued on Page 74)

California Field Report

By L. P. STOCKMAN

SHELL'S LATEST DISCOVERY WELL CONSISTENT PRODUCER

LOS ANGELES, Calif., June 15.—Amerada Petroleum Co. is believed to have found a new dry gas field in Solano County as its No. 1 Emigh, in section 26-4-2, showed a potentiality of 20,000,000 feet per day on a formation test. This wildcat, about 5 miles northwest of Rio Vista, was bottomed at 4,417 feet and has a string of 11¾-inch landed and cemented at 4,375 feet. It is the present intention of the company to deepen the well in order to determine whether there are any more productive gas horizons below the zone from which the formation test was made and also to ascertain the possibility of developing commercial oil production. This section of the state has occupied a prominent position in the spotlight during the past several months due to the discovery of a commercial gas field by the Amerada Petroleum Co. at Tracy in San Joaquin County and the finding of a new possible gas field on McDonald Island by the Standard Oil Co. Solano County lies not many miles northeast of San Francisco.

The Ohio Oil Co. has completed another gas well in the Buena Vista Lake gas field of Kern County, No. 7-A on the K. C. L. lease in section 5-32-26, which flowed 5,000,000 feet of gas per day from 4,217 feet. The Ohio Oil Co. has completel five gas wells in this field since its discovery. Two other wells, Nos. 2 and 3, were barren. The Ohio's No. 7-A was finished with a 6⅝-inch water string landed and cemented at 4,177 feet and a 4¾-inch liner including 50 feet of 120-mesh screen. In the Chowchilla gas field of Madera County, the Pure Oil Co. completed No. 3 Chowchilla flowing 10,000,000 feet of dry gas per day from 2,709 feet after finishing the hole with an 8⅝-inch water string landed at 2,632 feet and a 6⅝-inch liner carrying 90 feet of 100-mesh screen. Due to the lack of pipe line facilities, this new well, like other previous completions, was shut in. The Pure's next test in this district will be No. 4 Chowchilla in section 26-10-14 and spud should be made soon.

Stevens Field

The Shell Oil Co.'s discovery well in the Stevens field of Kern County is holding up with clock-like regularity, although the production of natural gas, 13,000,000 feet per day, has shown an increasing tendency. The natural gas from the Shell's discovery well has a theoretical content of 1.4 gallons of natural gasoline to each 1,000 feet of gas and the heat value of the gas tests 1,150 B.t.u. The oil contains approximately 90 per cent gasoline and 10 per cent gas oil. The company has not yet announced its development program but will probably undertake additional drilling in the near future as the Shell's projected pipe line from Bakersfield in Kern County to Martinez in the San Francisco Bay region should be in operation by the time any additional wells are completed. With the additional development, the Shell will be obliged to erect a new natural gasoline plant and the Southern California Gas Co. need only lay 10 miles of line to tie into its main trunk. There is a considerable difference of opinion as to the geologic age of the productive formation, although it is generally agreed that it is not the Temblor formation of Miocene age. The absence of any sand body above the productive zone tends to indicate the probability that the Shell's discovery well in the Stevens area is producing from the Santa Margarita formation of Upper Miocene age.

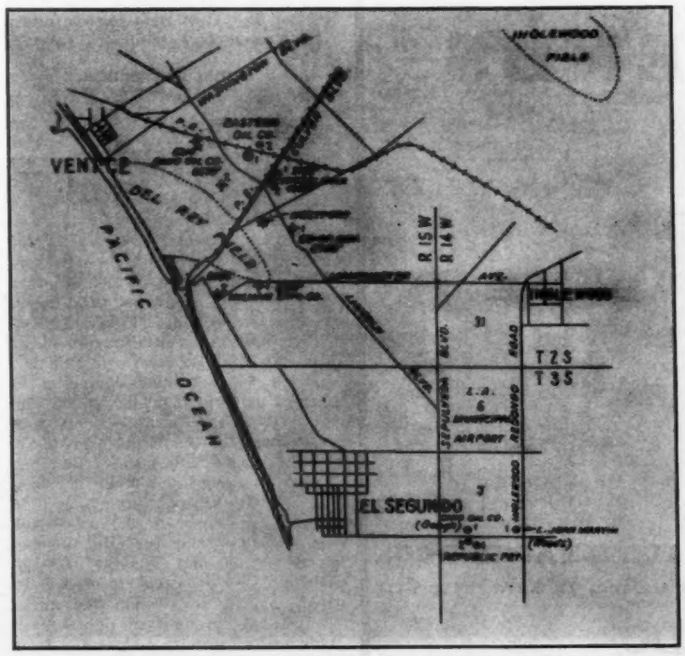
The Shell has apparently decided to utilize its own production to meet refinery requirements and thus reduce its crude oil purchases to a minimum. The discovery of a new highly productive field in the Stevens district fits in perfectly with this policy, particularly in view of the fact that the oil, which tests 61.4 degrees in gravity, is highly desirable from a refining standpoint. The oil is straw colored and is more in the nature of a condensate than a normal crude oil.

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	May 31		May 24			
Intercoastal-domestic:	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Diesel and gas oil	.....	.....	.....	.....	151,541	527,098
Gasoline	.....	.....	191,282	27,326	2,798,566	3,197,811
Kerosene	76,510	10,787	62,680	8,954	643,609	669,351
Foreign exports:						
Crude oil	180,434	25,776	263,760	37,680	4,246,417	4,527,587
Fuel oil	177,858	25,408	231,058	33,008	4,462,660	5,311,190
Diesel and gas oil	129,102	18,443	187,589	26,798	2,550,769	1,950,051
Gasoline	231,381	33,054	211,892	30,270	2,894,790	2,294,835
Kerosene	.....	.....	37,236	5,319	424,226	547,994
Other unfinished oil ..	.....	.....	.....	.....	16,894	56,161
Coastwise-domestic:						
Crude oil	154,639	22,091	313,426	44,775	3,278,879	2,364,177
Fuel oil	77,186	11,027	102,748	14,678	3,621,877	3,964,296
Diesel and gas oil	.....	.....	9,083	1,298	519,927	429,384
Gasoline	132,156	18,879	129,036	18,434	5,532,620	3,863,130
Kerosene	8,967	1,281	.....	.....	97,651	57,833

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic:						
Diesel and gas oil	.....	.....	.....	.....	.....	157,258
Gasoline	.....	.....	.....	.. ..	71,960	.....
Kerosene	.....	.....	.....	.....	.....	149,716
Asphalt	.. ..	.....	7,636	1,091	68,586	209,047
Lubricants	6,613	945	.....	.....	24,742	19,550
Foreign exports:						
Crude oil	120,421	17,203	46,962	6,709	1,282,911	1,355,979
Fuel oil	28,772	4,110	21,394	3,056	1,372,762	794,349
Diesel and gas oil	112,944	16,135	38,730	5,533	459,314	522,222
Gasoline	153,524	21,932	38,160	5,451	1,503,666	1,405,148
Kerosene	106,809	15,258	26,667	3,810	389,174	447,556
Lubricants	8,730	1,247	.....	.....	138,655	111,035
Coastwise-domestic:						
Fuel oil	152,059	21,723	123,974	17,711	3,239,156	1,958,711
Diesel and gas oil	42,981	6,140	42,817	6,117	316,875	134,687
Gasoline	160,212	22,887	32,768	4,681	2,192,832	1,927,927
Kerosene	10,469	1,496	.....	.....	69,401	30,841



The Eastern Oil Co. has discovered a promising oil zone in its wildcat approximately 1 mile east of Playa Del Rey field

Edison

The Texas Co. completed No. 8 Jergins fee in the Edison field of Kern County a few days ago, pumping 475 bbls. of relatively clean 15.1 gravity oil per day from 2,115 feet. It was finished with an 11¾-inch water string landed and cemented at 1,995 feet and an 8⅝-inch liner carrying 120 feet of perforated. No. 6-A McCowan of the A. T. Jergins Trust, in section 13-30-29, blew out and flowed by heads at the rate of 350 bbls. per day from 1,560 feet while rods and tubing were being run, but the well was finished against the flow and finally completed on the beam pumping 260 bbls. per day. Top of the Chanac was logged in this well at 1,325 feet, top of the Santa Margarita at 1,420 feet and top of the basement complex at 1,515 feet. The Union Oil Co. has a new rig going up for No. 1 Reese in section 14-30-29 and spud is scheduled to be made June 15. J. E. O'Donnell has filed an abandonment notice on No. 1 Bloemer, in section 17-30-29, after an unsuccessful production test at 4,005 feet.

Mountain View

In the Mountain View field of Kern County, Mohawk Petroleum Co. finished two producers, but was obliged to put one on the beam and finish the other on gas lift as neither had sufficient kick to result in a natural flow. The company's No. 7 Clendennen, in section 30-30-29, was brought in pumping 62 bbls. of relatively clean 25.6 gravity oil per day from 5,985 feet after the hole had been finished with a 4¾-inch combination string. The company's No. 9 Hood showed an initial production of 297 bbls. on gas lift, the oil being fairly clean and testing 31.1 degrees. No. 9 Hood was completed at 6,074 feet and finished with a 4¾-inch liner landed at 5,775 feet. The North American Consolidated has abandoned No. 1 Peters in the Mountain View field at 6,430 feet and the Barnsdall Oil Co. has filed abandonment notice on No. 1 Noble in section 30-30-29.

Honolulu Oil Corp finished an exceptionally good well in the Round Mountain field of Kern County, Honolulu, Barnsdall and Shell should list additional completions within the next 10 days. The Honolulu's No. 1 in section 20-28-29, was brought in pumping 358 bbls. of unusually clean

18.1 gravity oil per day. It was bottomed at 1,903 feet and finished with an 8⅝-inch water string landed at 1,848 feet and a 6⅝-inch liner carrying 59 feet of 130-mesh screen. The Benito Huntington Oil Co. has picked up exceptionally good looking oil sand in its No. 1 Staley in section 8-28-29 at 1,900 feet and an early production test will be made. The Shell Oil Co. is making a production test on No. 14 Caldwell and it should be followed into production within a short time by Nos. 6 and 13 on the same lease. In addition to starting several more wells on the Caldwell lease, the Shell has started rig construction for No. 10 Freeman in section 20-28-29. The Barnsdall Oil Co. next completion in the Round Mountain field should be No. 6 Caldwell in section 7-28-29 and the company will spud in No. 5 Caldwell immediately upon completion of No. 6. The Petroleum Securities, after an extended period of inactivity, is making preparation to drill No. 5 Coffee in section 6-28-29 and an early spud is anticipated.

Mount Poso

In the Mount Poso field of Kern County, the General Petroleum Corp. has finished No. 13 Heisen, section 16-27-28, pumping 130 bbls. of 15.8 gravity oil per day from 1,583 feet. Within the next several days, the General Petroleum should complete No. 30 Heisen and R. S. Lytle should have No. 3 Dorsey, in section 26-27-28, tanking oil. Out on the Kern River front the Standard Oil Co. completed No. 26-15 in section 15-28-27, pumping 136 bbls. of 16.4 gravity oil cutting 10 per cent from 2,175 feet. The Vega Oil Co. completed No. 2 in section 11-28-27 and, while no accurate gauge is available, it looks good for about 75 bbls. per day from 1,700 feet. The Republic Petroleum completed one well in the Kern River front and abandoned another, No. 1 Crosby, in section 12-28-27, as a duster at 1,839 feet. The Republic's new oil well, No. 2 Fleishacker, in section 11-28-27, was brought in pumping 210 bbls. of 16.4 gravity oil per day from 1,952 feet after the hole had been completed with a 10¾-inch water string landed at 1,820 feet and an 8⅝-inch liner carrying 96 feet of perforated. American Exploration Co., Chanslor Canfield Midway Oil Co., General Petroleum Corp. and National Oil Co. should each finish one well within the week.

Midway-Sunset

Three wells were completed in the Midway-Sunset field of Kern County but none showed large production. The General Petroleum No. 2 Main Line failed to come up to the high standard set by No. 1 Main Line, which registered high production upon completion a few weeks ago. No. 2 Main Line was brought in flowing 116 bbls. of clean 23.6 gravity oil and 3,000,000 feet of gas per day from 2,802 feet after the hole had been finished with an 8⅝-inch liner including 131 feet of perforated. The well shows a pressure of 725 pounds on the tubing and 820 pounds on the casing. It may be possible that a more favorable gas-oil ratio may subsequently be worked out by the company's field department. Otis Hoyt No. 1 Maricopa in section 7-11-23 was completed pumping 40 bbls. of 16.9 gravity oil per day from 1,617 feet, but production is showing a cut of 9 per cent. The Standard Oil Co. No. 30-31, in section 31-12-23, was the smallest well completed in the Midway-Sunset field this week, and it likewise showed the highest cut. It pumped 25 bbls. of 20.6 gravity oil per day, cutting 40 per cent, from a depth of 3,529 feet. Gibson Oil Co. No. 3 O'Brien, completed last week flowing 1,672 bbls. per day, established a potential daily production of 2,560 bbls. early this week. It was subsequently pinched back to 1,250 bbls. and will be further reduced within a few days.

The Associated Oil Co. is making a production test on No. 2 Williamson, an outpost in the Lost Hills field of Kern County, from the comparatively shallow depth of 1,146 feet. This well was given a formation test early this week and showed a good flow of gas for a period of approximately 15 minutes and yielded some oily mud. It is located 2 miles north of the Lost Hills field but definitely in the trend of production.

Santa Fe Springs

In the Santa Fe Springs field of Los Angeles Basin, Union Oil Co. completed four wells for an aggregate initial daily production of 1,242 bbls. Two of the wells were completed in the Bell zone and both registered satisfactory production. No. 32 Alexander was brought in pumping 235 bbls. of 30.5 gravity oil per day from 3,737 feet, while No. 99 Bell, another new producer completed in the Bell zone, was good for 260 bbls. of clean 32.4 gravity oil initially from 3,732 feet. No. 32 Alexander was finished with a 6⅝-inch liner including 74 feet of perforated, while No. 99 Bell was finished with a 6⅝-inch liner including 120 feet of perforated. No. 97 Bell was the largest of the four wells. It flowed 662 bbls. of clean 33.9 gravity oil per day from 6,114 feet. It was finished with a 6⅝-inch combination string including 23 feet of perforated and cemented through perforations at 6,086 feet. No. 92 Bell, a Meyer zone completion of the Union, was brought in pumping 85 bbls. of 33.9 gravity oil per day from 4,565 feet.

A number of potential producers are nearing completion in the Redondo extension of the Torrance field. During the past week Lawler Petroleum Co. completed No. 1 Redondo at 3,525 feet. It pumped 230 bbls. of 17.8 gravity oil per day after the hole had been finished with a 6⅝-inch liner including 373 feet of perforated. In the western end of the Torrance field many recent completions have shown a cut ranging from 1 per cent to as high as 20 per cent water. The increasing amount of water may be the forerunner of a troublesome problem within another few months.

Wilmington

General Petroleum is conducting a production test on its No. 1 Terminal in the Wilmington district of Los Angeles Basin but the utmost secrecy is being maintained. The company's No. 1 Terminal is located across the street from the Ford Motor Co.'s Wilmington assembly plant, which is located at tidewater. General Petroleum is testing out a limited amount of oil sand logged between 2,450 feet and 2,694 feet. Interest caused by the prospect of a new oil field in the Wilmington area was stepped up by the announcement that Bankline Oil Co. has accumulated leases on approximately 1,100 acres west of the Los Angeles flood control channel. Besides the 700 acres acquired in town lots and larger community leases, the company has taken over important parcels from the Watson Land Co., the Capital Co. and the city of Los Angeles. The leasing crews are headed by W. O. (Bill) Maxwell, formerly with the land department of the Associated Oil Co. Bankline contemplates a thorough drilling campaign on its holdings, probably to begin within the next few months. The company has made a geological study of the area during the past year and is confident that a good producing field can be developed on its properties. The large parcels comprising 1,100 acres will enable Bankline to avoid unrestricted town lot drilling with its usual ruinous results.

Inglewood

The Shell Oil Co. completed an excellent producer in the Inglewood field of Los Angeles Basin a few days ago when No. 20 Rindge was brought in flowing 2,280 bbls. of clean 25.2 gravity oil and 1,400,000 feet of gas per day from 3,788 feet. In the Dominguez field, the Union is confronted with a fishing job in No. 8 Carson at 7,077 feet and is conducting a formation test on No. 44 Callender, another deep well which is bottomed at 8,103 feet. The Standard Oil Co. No. 82 Baldwin in the Montebello field is being carried on down as a deep conclusive test and the outcome of drilling on this project may prove interesting because it is the present intention to keep on drilling until deep production is developed or the resources of the geologic column exhausted. No. 82 Baldwin is nearing the 8,300-foot level at the present time and the casing record shows 2,390 feet of 16-inch casing.

The Shell finished two new wells in the Capitan field of Santa Barbara County and both of them registered commercial production. The company's No. 1-13 Covarrubias, finished in the Vaqueros formation at 1,536 feet, was brought in flowing 166 bbls. of clean 22.3 gravity oil per day. The Shell's No. 1-10 Covarrubias was finished in the Sespe formation at 2,853 feet and was brought in flowing 107

(Continued on Page 74)

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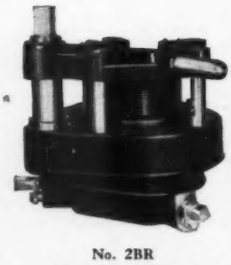

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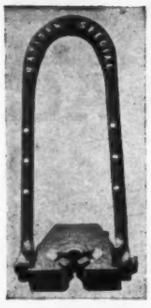

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Among Gulf Coast Drilling Contractors

The majority of Gulf Coast drilling contractors are busier now than they have been for some time. Very few rigs are stacked. Although there are no individual large boom plays, which always are paradise for contractors as far as volume of work is concerned, there are numerous fields on the Gulf Coast in which development is keeping up consistently, and, in the aggregate of these, plenty of work is being furnished the contractors. It so happens that a substantial part of drilling development in most of these fields is being done by companies which have come to the Gulf Coast within recent years, and as comparative newcomers, they do not have the rigs of their own in this country as do the older companies, such as Humble Oil & Refining Co., Gulf Oil Corp., Shell Petroleum Corp. and the Texas Co. At the same time even the above older Gulf Coast companies, particularly the Texas Co., have found need for contractors.

The fact that drilling is being carried on consistently in various fields, prolongs the work in individual fields for the respective contractors. This is more desirable to them than if all the activity were concentrated in some boom field, where they might find a lot of work, more than they could take care of, for a short time, only to have such a field quickly drilled up and then have to stack their rigs, or move them to some other play. As it is, contractors can become established on a more or less permanent basis in the respective fields, and the cost of moving rigs in an out of plays is minimized.

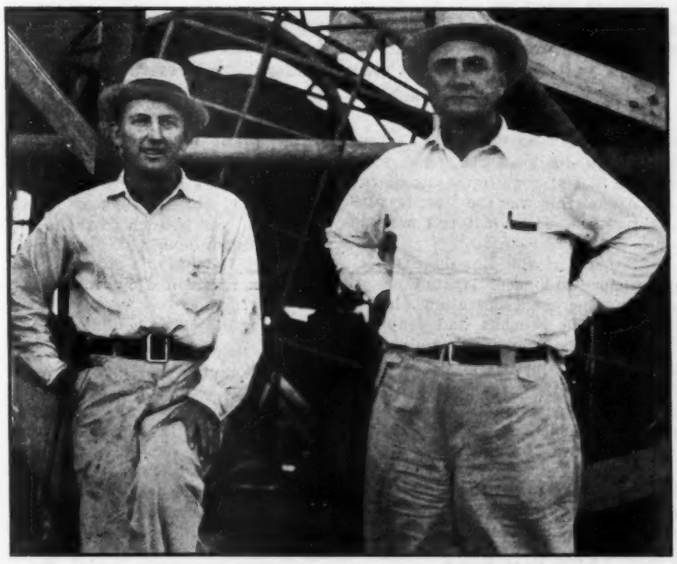
Interesting at this time is the number of drilling contractors who are drilling wells of their own on the Gulf Coast. Among such contractors are Smith & McDannald, who are drilling a wildcat on the Lakeview prospect in Wharton County; Henry J. DeArman, who is drilling a wildcat about 2½ miles northeast of Amelia development in Jefferson County; Edwards Drilling Co., which is drilling a test in the Picketts Ridge field, Wharton County; Pat Rutherford, who is interested with Skelly Oil Co. in the Van Vleck field, Matagorda County; Adrian Moore, who also has a test at Picketts Ridge; Al Buchanan, of San Antonio, who has various interests in drilling of his own; Glenn H. McCarthy, who has been active in several spots, more particularly lately at Anahuac, Amelia and Cotton Lake; Alamo Drilling Co., with various drilling operations of its own; Turnbull & Irwin, producers in their own right; Dirks Brothers of Bee County, and various others.

Of late interest is the test being drilled by Henry DeArman for himself northeast of the Amelia field in Jefferson County. This test at latest report was drilling below 6,100 feet and was reported to have passed several gas sands with prospects of production. If productive it will put another contractor into the producing business. The irony of it all is that while contractors bring in much of the district's new production, there are comparatively few who open any new production of their own.

Adrian Moore, who has production of his own at Conroe, is about to bring in a well of his own at Picketts Ridge. This well, No. 1 Wilbeck, at latest report was coring at 4,703 feet in sand showing oil and gas.

For reasons mentioned above, namely, that rigs are kept busy fairly consistently in steady development of various fields, the past week saw very few changes in locations of contractor's rigs. Edwards Drilling Co. has moved its rig, which has just completed a dry hole on the Grigsby

(Continued on Page 90)



H. Harris (right), superintendent, and A. L. Pate, warehouseman, Humble Oil & Refining Co., taken at a wildcat test drilled recently by that company

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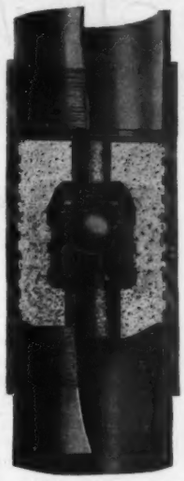

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Southwest Texas District

LAREDO FIELD WORK SLOWS; COASTAL COUNTIES ACTIVE

By
GEORGE WEBER

SAN ANTONIO, Tex., June 15.—The general seasonal decline in drilling activity was evident in the Laredo district of Southwest Texas during the past week, as operations slackened in the major fields of the area. The lower coastal counties saw sustained drilling, and will probably fare better during the summer than other areas, due to the new developments which have taken place recently. The Lopez field of Webb County will doubtless be an exception to the Laredo district letup, since the completion of an important extension will stimulate drilling in that field.

Already two offset locations have been staked in the Lopez field to the new Magnolia Petroleum producer. The extension well, No. 1 Peal in Survey 383 was completed during the week for 10 bbls. per hour from the field sand at 2,114-19 feet. Constituting a northeast extension to the field, the new producer goes further to indicate the extent of the field structure beyond to the northeast well into Duval County. This is evident from data of the Magnolia and Luling Oil & Gas Co. tests in this area. The Luling test ran higher than any other in the field indicating that the structure would extend to the northeast. Accordingly, Magnolia drilled the No. 1 Peal due east of the Luling gasser, and encountered oil.

The Magnolia Petroleum Co. is moving to a location north of the first test. The Gem Oil Co. is also planning an offset well. Other operators in the general area may open operations soon and give the field considerable development.

Duval County

In spite of the slackening, Duval County held first place as most active County in Southwest Texas during the week. In Loma Novia, the center of most operations at present, 11 producers were brought in. The field has been the scene of intensive drilling for several months, and several of the large leases are becoming drilled up. Most of the drilling continues in the proven blocks. Seven Sisters, on the other hand, is seeing more of the expansive type of drilling, since much of the activity is located on the edges of the field's productive limits. This is true of operations on the east, north, southwest and west. A group of producers to the north of the field have opened up much acreage intervening, and there remains considerable area already proven in addition to the development of the field in its undefined limits. Eight producers were completed in this field over the week, all finding production in the Government Wells sands. Drilling of twin wells has begun on the eastern edge of the field. Here Westheimer & Daube have completed No. 11 Campos, a twin to No. 1 which was completed in the shallow Chernosky sand.

Smaller fields of Duval County chalked up several completions. The Hoffman field was particularly active with four new producers. Other fields gaining new wells were N. Kohler and Piedra Lumbre. The Loma Vista field received its first setback during the week when Shell Petroleum Corp. No. 1-A Welder was abandoned dry at 3,188 feet after failing to find production. The field was brought in last year by Santa Clara Oil Co. and this was the first test it had received. The Shell test was a south offset.

Elsewhere in the Laredo district operations also lagged. Zapata County is seeing increased operations, however, the the Escobas and Haynes fields, but the increase is unimportant since production is small and sands shallow.

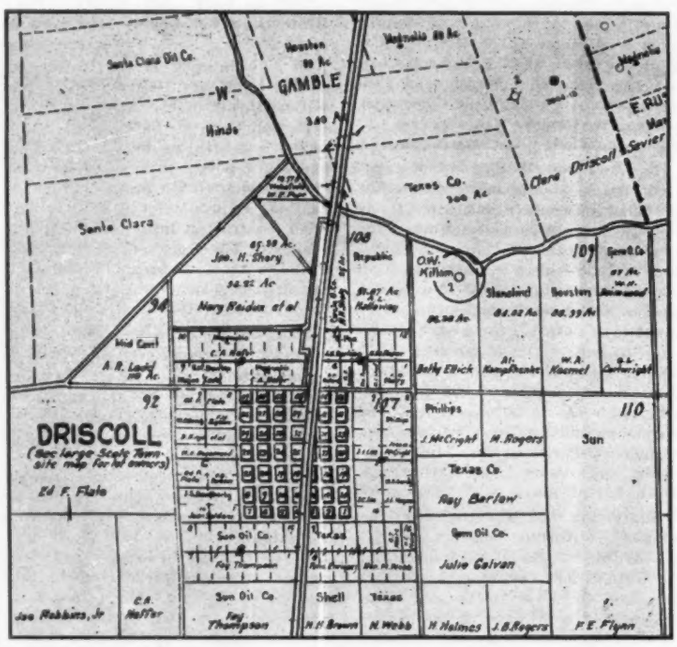
In McMullen County, a second gasser was added to the new Rhode field which was brought in recently by Magnolia Petroleum Co. The new well, Humble Oil & Refining Co.'s No. 1 Rhode, in Survey 58, cored sand from 1,795 to 1,807 feet with oil odor.

5,800-Foot Sand

Development of the deep 5,800-foot sand in the Saxet field continued, with the approach of four other tests to possible completion in it. One of these, Houston Oil Co. No. 2 McGregor, cored oil sand at 5,818-26 feet, but had a fishing job before completion was accomplished. If brought in as a producing well, the test will greatly extend the production in the deep Frio sand. It is 3,500 feet north of the nearest 5,800-foot production. The deep sand is showing for the most important horizon in the field, combining good body with uniformity over a large area.

In Saxet, three producers were brought in, one in each of the 4,800-foot, 4,100-foot and 4,400-foot sands. The Saxet Heights or Corpus Christi field was augmented by four more producers during the week, and activity in that field is holding up.

Wildcatting in Nueces and San Patricio Counties has become very active, with more than a dozen tests drilling or under way, and still others proposed. In Nueces County, O. W. Killam is rebuilding the derrick on his No. 1 Ellick location to attempt completion in a shallow gas sand. The wildcat was shut in and finally killed last week after blowing wild for a week and spraying the area for miles around with oil and fine sand. The wild well made great quantities of oil and deepened itself to the salt water sand before it was capped and controlled. The strike revived interest considerably in the area which was relatively disregarded for several months. The No. 1 Ellick is about a mile from the Santa Clara Oil Co. No. 1 Driscoll Sevier, discovery well of the Clara Driscoll field. No offset locations have yet been announced for immediate drilling, but the finding of oil in the wildcat is expected to bring early activity to the area.



Derrick is being rebuilt on the O. W. Killam No. 1 Ellick to attempt completion of the wildcat in shallow gas sands, it is reported. The test blew out recently and ran wild for a week making quantities of oil and later, salt water under high pressures

(Map by Porter Regenold, Corpus Christi)

San Patricio County

In San Patricio County, the Plymouth Oil Co. is to begin a wildcat on the company's D lease, southwest of the Plymouth field. Benedum & Trees Oil Co., which is now drilling two wildcats west of the field, is planning the drilling of a third in the near future. That company's No. 2 Welder has plugged back from below 7,000 feet to 5,710 feet and will make a test at that level. The No. 3 Welder is approaching the sands which showed for production in the No. 2, 933 feet northeast of it, and the second test of these horizons is expected soon. The Portilla Oil Co. No. 1 Welder, also west of the Plymouth field, was reported to have tested salt water at 6,100 feet late in the week. O. W. Killam has announced a new location for a wildcat to be drilled in the George Paul subdivision of the Welder ranch.

In addition to the wildcatting which has started in these two counties, new drilling is about to start in the Plymouth field. The Centennial Oil Co. has leased from the state of Texas as the bed of Chiltipin Creek which traverses the Plymouth field, and drilling will begin soon. Location has been announced for the first well.

The Bentonville field in Jim Wells County looks discouraging from the failure of two discovery tests to find the sand. The Texon & Lucey No. 1 Dodd, in section 15, is coring below 6,400 feet, and Stanolind Oil & Gas Co. No. 1 Sain is drilling hard sand at 5,500 feet. Neither picked up the sand which is producing the Texon & Lucey No. 1 Rolston at 5,380-90 feet. However, Stanolind No. 1 Raney, another offset, has cored saturated sand and will test at 5,364½-76 feet.

Completion records and drilling progress in Southwest Texas will be found in detail in the section devoted to drilling operations which starts on Page 91.

Magnetic Storm

Tucson, Ariz., observatory of the U. S. Coast and Geodetic Survey report a moderate magnetic storm began at 4 p.m. (C.S.T.) on June 8 and ended at 8 p.m. (C.S.T.) June 10. The telegram follows:

"Moderate storm began eight. Sixteen. Ended tenth. Twenty."

Eastern Field Report

By STAFF CORRESPONDENT

GASSERS EXCEED OIL WELLS IN SOUTHERN END OF FIELD

PITTSBURGH, Pa., June 15.—Thirteen gas wells, eight oil wells and nine dry holes, a total of 30 completions, were recorded in the southern end of the Pennsylvania Grade fields in the past week.

Another deep sand test was completed in the Oriskany field in West Virginia and additional new tests started. In Elk district, Kanawha County, the Columbian Carbon Co. completed No. 1 W. L. Burdette in the Oriskany sand at a total depth of 5,051 feet. The top of the Cornifcerous lime was at 4,911 feet and the top of the Oriskany sand at 5,009 feet. Before the shot it had a volume of 1,500,000 feet a day, which increased to 5,000,000 feet a day after a shot at 5,009-51 feet. This had been a former fair gas well in the shale.

In the same district the Columbian Carbon Co. has started spudding a new test on the Kanawha Valley Bank (Grant Copenhaver) lease on Lick Branch. The elevation of the mouth of the well is 744.40 feet and it is located 2,200 feet south of No. 1 G. and D. Copenhaver. This tract comprises 121 acres.

Deepening to Oriskany

On Wolf Pen Branch of Little Sandy Creek in Elk district the West Virginia Gas Corp. has started deepening No. 1 James H. Cooper from 2,500 feet to the Oriskany sand. It is 3½ miles northeast of the Coopers Creek activity.

In Malden district, Kanawha County, South Penn Oil Co. made a location for No. 3 Katherine C. Scott in the southeast corner of that tract. Godfrey L. Cabot, Inc., has run casing in the two wells drilling on the Campbells Creek Coal Co. tract. No. 9 is 4,522 feet deep and No. 10, 4,697 feet, and both should be completed within a week. This operator is down 4,500 feet on the W. D. Lewis, 1,473 feet in No. 2 William Tompkins heirs, 3,852 feet in No. 2 Nellie B. Tompkins and 1,040 feet in No. 3. The United Fuel Gas Co. is rigging up to start its first deep test on the George Creek Land & Mining Co. tract, with a rig standing for a second and a location made for a third.

In Big Sandy district, Kanawha County, United Carbon Co. cemented at 2,295 feet in No. 15 J. A. and M. F. Osborne preparatory to deepening to Oriskany sand. This is over 20 miles north of the Malden district wells and along the same Warfield anticline. T. W. Dodd and others made a location on the Sallie Cart farm. United Fuel Gas Co. completed the rig for No. 4,628 L. D. Updegraff farm.

In Elk district, United Fuel Gas Co. is building rig for No. 4,627 King Land Co., and has part of the material on the ground for a test on the C. B. Graham farm. Columbian Carbon Co. is drilling at 5,780 feet in a lime formation below the Oriskany sand on the M. M. Robertson farm, which proved dry in the Oriskany sand. Their test on the W. H. Baxter and others farm is down 4,719 feet or in the Oriskany sand with no showing at present. Godfrey L. Cabot, Inc., is rigging up on the Robert L. Bibby farm, east of the Mary C. Wingfield gas well. The Glen Oil & Gas Co. is down 3,180 feet in the test on the Virginia Joint Stock Land Bank lease. S. B. Avis, trustee, is drilling at 1,120 feet in a test on the Grant Copenhaver 147-acre tract. The United Carbon Co. has spudded in and started drilling on the Henry C. Smith farm. The Sandy Elk Oil & Gas Co. is rigging up on the Perry Moles heirs farm.

In Loudin district, Kanawha County, the Owens Illinois Glass Co. has set casing in the lime in their test on the L. A. Christy farm. The depth is 4,428 feet. In Union district the West Virginia Gas Corp. is down 1,755 feet on the C. M. and Lizzie Caldwell farm. In Poca district the United Carbon Co. is building the rig for a test on the Ahaz Spencer farm.

During the week 30 operations were completed in the lower Eastern fields, of which 9 were dry holes, 13 gas wells and 8 producers with an initial production of 114 bbls. a day. With one exception, all the new production was in Southeast Ohio.

SOUTHEAST OHIO

In Coshocton County the Upham Gas Co. completed a test on the Alonzo Spurgeon farm, Lot 19, Riverton Township, in the Clinton sand at a depth of 2,989 feet. It is a gas well gauging 200,000 feet a day with a small showing of oil. This test has not been shot.

In Holmes County, S. J. Bell and others completed a second test on the Cliff Finley farm in section 13, Mechanic Township, in the Berea sand at 813 feet. It is a gas well gauging 375,000 feet a day with no showing of oil.

In Knox County the Knox Exploration Co. completed a well on the Manning Cline farm in the NE quarter of section 22, Union Township, in the Clinton sand at a depth of 3,122 feet. After shot, this test produced 30 bbls. the first day. In the southeast quarter of Jefferson Township the Upham Gas Co. drilled a test on the George B. Swingle farm through the Clinton sand to a depth of 3,010 feet, and it was a dry hole.

In Licking County the Rutledge & Mossholder Lease Co. completed a 5-bbl. pumper on the William E. Teagarden farm in section 15, Perry Township, in the Berea sand at a depth of 706 feet.

In Mary Ann Township, Licking County, C. R. Settles completed a 3-bbl. well in No. 4 on the O. B. Vans farm, Lot 2, in the Berea sand at a depth of 586 feet.

In Medina County, Curtis and Eaken No. 14 on the Thomas Brown, Jr., lease, Tract 6, Lot 22, Chatham Township, is a 1-bbl. well in Berea Grit at 400 feet.

In Monroe County, Pearl V. Parks completed a fair test on the F. O. Parks farm on Whitten Creek in section 6, Bethel Township. It was drilled in the sand at 1,500 feet and produced 25 bbls., naturally, the first day. In section 16, Center Township, N. T. Staudt and others completed a second test on the Alva C. Jackson farm in the Keener sand at 1,518 feet as a gas well gauging 600,000 feet a day.

In Morgan County, W. L. Swingle, trustee, drilled a dry hole on the Fred K. Blind farm, 1 mile north of Dale, Lot 1,091, Windsor Township, through the Cow Run sand at 460 feet.

In Muskingum County the Hopewell Fuel Gas Co. completed a good well on the Mary Middleton farm in the NW quarter of section 16, Brush Creek Township, in the Clinton sand at a depth of 4,107 feet. It is a gas well gauging 2,000,000 feet a day.

In Noble County, Larrick & Rich and others completed a test on the S. L. Murphy farm in the SW quarter of section 18, Seneca Township, in the Berea Grit at 1,632 feet. It produced 5 bbls. the first day after shot. It is second-crop production on this farm.

In Washington County the Henry Oil & Gas Co. completed a gas well on the D. B. Mulinex farm on Sackett Run in section 27, Ludlow Township, in the Injun sand at 1,218 feet. It gauged 800,000 feet a day. Two miles south of Cutler in section 26, Wesley Township, the Leyde Oil & Gas Co. drilled a test on the Alva Leyde farm through the Injun sand to a depth of 1,328 feet. It was dry.

In Columbiana County the deep test of the Natural Gas Co. of West Virginia on the W. Strudthoff farm, in Madison Township, is shut down within 10 feet of the Oriskany horizon with a fishing job. It is 4,380 feet deep. This company is building rig for the deep test on the William Grafton farm in the SW quarter of section 25, Wayne Township. At the test on the Albert Ketchum farm, in Madison Township, there is a fishing job above the Berea sand.

SOUTHWEST PENNSYLVANIA

Four operations were completed in Southwest Pennsylvania. In Beaver County, C. E. Bartley and others, on the John Nelson farm, in Green Township, got a 10-bbl. well in the Berea sand.

In Allegheny County, O. Miller completed a gas well on the McClay heirs farm, in Hampton Township. In this township the E. A. Bream Co. is down 500 feet in a well on the Wallace heirs farm.

In Washington County the South Penn Oil Co. test on the Anna A. Lowery farm, in Amwell Township, in the top pay of the Fifth sand, showed as a fair producer. The casing filled up 1,200 feet and 25 bbls. were swabbed from it. It will be drilled down through the second pay.

In Greene County, Lewis & Co. drilled a test on the Samuel Chess farm, in Richhill Township, to a total depth of 2,965 feet. It was a dry hole. The Pittsburgh Coal was at 712 feet.

In Beaver County, J. L. Abrams & Co. were drilling No. 3 Robert Hites, in South Beaver Township, at 650 feet. In Green Township, R. B. Abrams is down 700 feet in No. 8 on the Clara Walton Crook and others farm. In Butler County the T. W. Phillips Gas & Oil Co. is drilling at 1,000 feet in the test on the Joseph Hranica farm, in Buffalo Township.

Greene County

In Richhill Township, Greene County, Burley Wright and others are drilling at 400 feet in the test on the Joseph McCracken farm. The Carnegie Natural Gas Co. is down 640 feet in a test on the J. W. Milliken farm. The Natural Gas Co. of West Virginia has reached 1,808 feet in a second test on the William Baltzell farm.

In Jackson Township, Greene County, the Equitable Gas Co. has reached a depth of 615 feet on the Hiram White test. In Center Township the South Penn Oil Co. will complete No. 9 on the Charles T. Harvey farm this week. It is down 3,228 feet. In Franklin Township the Waynesburg Home Gas Co. has reached a depth of 2,530 feet on the W. F. Guthrie farm. In Springhill Township the Dunn Mar Oil & Gas Co. is drilling at 2,100 feet in No. 4 David Hostutler.

In Amwell Township, Washington County, South Penn Oil Co. is down 2,680 feet in the test on the Hazel M. Seese farm. The Gantz sand was at 2,645 feet, with about 100,000 feet of gas showing at 2,660 feet. This company is also building a rig on the Piedmont Coal Co. (J. B. Thompson) farm. The New Oil & Gas Co. is at 2,090 feet in the second test on the Anna Chambers Phelan farm, and is building a rig on the Hatfield lease.

In South Franklin Township, Washington County, the Carnegie Natural Gas Co. is down 1,980 feet in the test on the Belle A. Jones farm. The Big Injun sand was at 1,760 feet, with 105,000 feet of gas showing at 1,765-74 feet and 1,852-55

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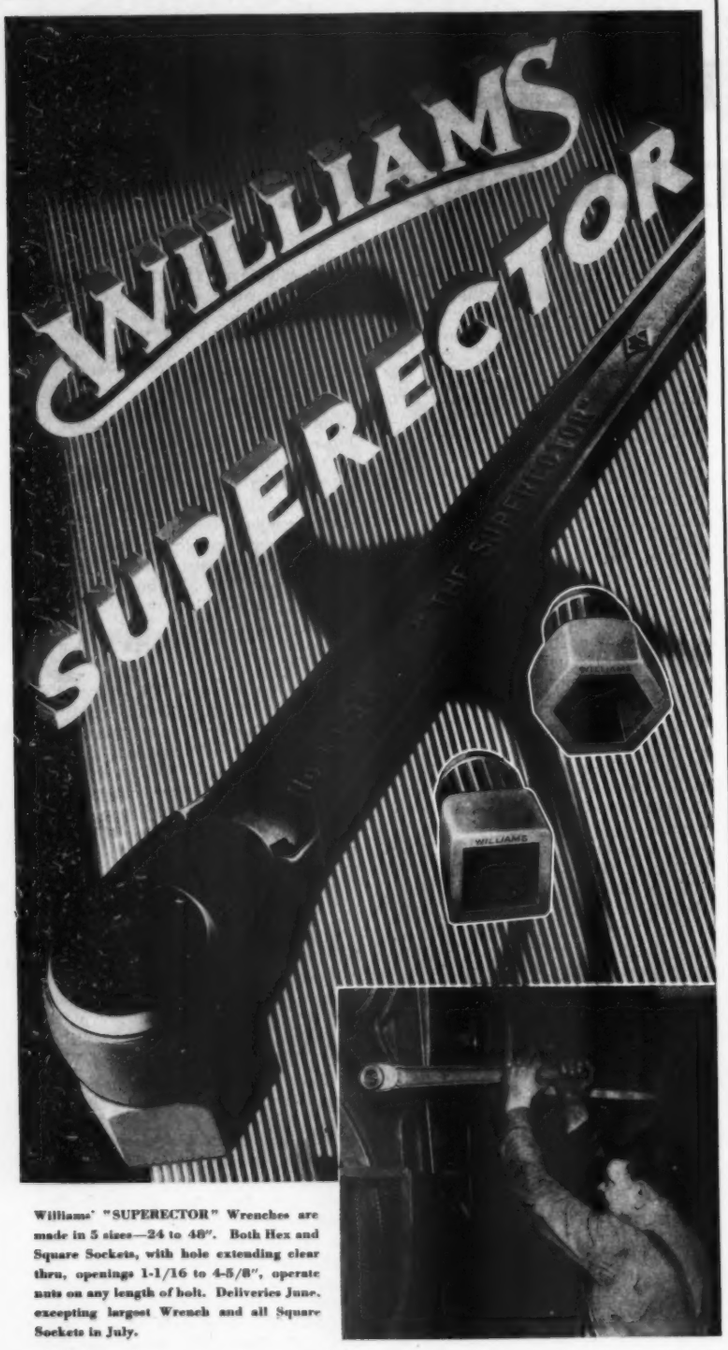

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feet. William Bungard is drilling a test on the Flora Clark farm and is at 517 feet. The Pittsburgh Coal was at 447 feet.

In East Finley Township, Washington County, the Union Gasoline & Oil Corp. is spudding in No. 5 J. N. Clutter. Natural Gas Co. of West Virginia is drilling at 2,820 feet on the J. R. and Lillian Day farm. The Duquesne Gas Co. is getting rig ready for No. 3 M. B. Rogers.

Deep Tests

The deep test of Norwood Johnston and others on the James McBurney farm in Pleasant Township, Washington County, is drilling at 4,500 feet. The lower Devonian is expected at 6,800 feet.

On Chestnut Ridge the deep test of William Snee and others on the Summit Hotel property, in South Union Township, Fayette County, is 6,300 feet deep, but the hole is starting to cave again.

WEST VIRGINIA

Seven gas wells and five dry holes were completed in West Virginia during the week. In Boone County the Owens-Illinois Glass Co. completed a test on the Nelson, Price and Carter lease, in Washington district, at a depth of 1,995 feet. Berea sand at 1,933-62 feet yielded 236,000 feet of gas initially. In Scott district this company completed the second test on the Mamie Ballard and others lease at 1,759 feet, with about 203,000 feet of gas in the Berea sand at 1,696-1,725 feet.

In Washington district, Boone County, O. B. Cunningham and others test on the J. H. Perdew farm is a Maxon sand gas well. Top of the sand was at 906 feet, with 1,770,000 feet of gas at 918-20 feet.

In Calhoun County, Lee district, South Eastern Gas Co. completed a test on the James Roberts farm at a depth of 1,917 feet. It gauged 5,359,000 feet a day from the Big Injun sand topped at 1,897 feet, with gas at 1,900-17 feet.

In the same district, Guy Boggess and others drilled a test on the Maude Altizer farm through the Big Injun sand, and it was dry. In Lee district the Ohio Valley Gas Co. drilled a test on the Charles Starcher farm, and it was also dry and abandoned. The Big Injun sand lay at 1,940-98 feet.

In Gilmer County, Center district, Leonard Cain and others completed a test on the J. R. Boggs farm in the Injun sand at 1,791 feet, and it was a small gas well. In this district, Homer Scott and others completed a test on the Doy McClain and G. G. Griffin lease at 1,825 feet, the Injun sand. It is a gas well gauging 150,000 feet a day. In DeKalb district the McCall Drilling Co. drilled a second test on the J. J. Hardman farm through the Injun sand to 1,823 feet. It was a dry hole.

In Ritchie County, Busch Brothers drilled a test on the Mahala Tingler farm, in Murphy district, through the Injun sand to 1,890 feet, and it was dry. In Clay district the McDougal Oil Co. drilled No. 3 on the M. M. McDougal and others' farm through the Squaw sand to 1,833 feet, and it was also dry.

New Operations

In Boone County the Owens-Illinois Glass Co. has made a location for a test on the J. N. McKinney farm on the Left Fork of Lick Creek, in Scott district, and a location for a test on the Sarah B. Mullens farm, on the same waters. On Turtle Creek, in this district, this company is rigging up No. 4 Mamie Ballard and others. On Spruce Fork, in Washington district, this company made a location on the C. L. Vickers farm for a second test.

On Trace Fork of Otter Branch the Pittsburgh & West Virginia Gas Co. made a location for a test on the John Bender farm, in Otter district, Braxton County.

In Cabell County the DeJarnette Gas Co. made a location for a test on the J. H. DeJarnette farm, on Tyler Creek, in McComas district. Seventeen wells are drilling in this county and additional rigs being built.

In Calhoun County the South Penn Oil Co. has rig up for No. 7 on the Caroline Haught farm, in Sheridan district. In Lee district the Simmons Gas Co. has made a location on the Hays & Brannon lease. In Sherman district, L. P. Bickel has rig up for No. 16 on the Martha Stump farm.

In Doddridge County the Pittsburgh & West Virginia Gas Co. has a location for a second test on the J. S. Britton farm, in South West district.

In Gilmer County the Pittsburgh & West Virginia Gas Co. has a location for a test on the James W. Vanney farm on Tanner Creek in DeKalb district. In this district, on Turkey Lick of Bull Fork of Tanner Creek, A. E. Ellis and others have a location for No. 5 on the Webster & Ware lease.

In Lincoln County the Harvard Gas Co. is drilling a deep test on the Lincoln Mineral Co. lease, in Washington district, which has reached 4,519 feet. This should be through the Oriskany sand. The Owens-Illinois Glass Co. has made a location for No. 15 Little Coal Land Co. on Conley Branch, in Jefferson district.

In Ritchie County the South Penn Oil Co. has rig up for No. 16 on the Haught Lambert farm, in Murphy district. In Clay district, A. R. Leatherman and others are drilling on the James B. McMullen farm, on Haddox Creek. On Bonds Creek, in this district, Lucas & Mahaney have rig up for No. 6 J. F. and Laura Kelly. In Union district, on Chevaux de Frise Creek, Carnegie Natural Gas Co. has a location for a second test on the Margaret Starkey (now Lawrence Cox) farm, and also one on the J. N. Riggs farm. In Grant district, on Gillespie Run, Hill & Kuhn have a rig up for No. 2 on the M. C. Rosser farm.

In Roane County the South Penn Oil Co. has a rig up for No. 2 E. T. McVey, in Reedy district. On Henrys Fork, in Smithfield district, Litton Oil & Gas Co. is drilling on the Elizabeth Dye farm. In Harper district, on Cox Fork, Guy Boggess and others have a rig on the A. D. Harper farm. S. M. Curry and others have started drilling on the Basil Wilson farm, on Cabbage Fork of Flat Fork, same district. L. C. Young and others have spudded on the A. N. Kee 84-acre tract, and also the W. R. Harper farm test.

In Wetzel County the Pittsburgh & West Virginia Gas Co. has a location for a test on the J. N. McDougal farm, in Grant district. On Fish Creek, in Proctor district, the Manufacturers Light & Heat Co. is drilling on the H. Hermann heirs farm, and in Church district is building a rig on the Sarah A. Scritchfield farm on Long Drain.

Texas and Louisiana Gulf

By
F. L. SINGLETON

TEST IN GALVESTON COUNTY OPENS POOL AT GREEN LAKE

HOUSTON, Tex., June 15.—Sun Oil Co. evidently has been successful in shutting off water in No. 1 Hughes, Green Lake area, south of Hitchcock in southwestern Galveston County, and on the basis of latest reports showing the well to be flowing pipe line oil, another new field definitely has been established for the Texas Gulf Coast district. Location has been made for a second test to be drilled 933 feet northeast of the discovery well, and in view of the 3,600-foot sand, a light rig is being moved in, in contrast to the heavy equipment on the first well, which was started as a deep test.

This is the wildcat test, which, after being plugged back from a total depth of 9,612 feet to 3,700 feet and with 9⅝-inch casing perforated at 3,610-20 feet, started flowing through the drill pipe on a drill stem test. In the 24 hours ending at 7 A.M., June 12, it flowed 379 bbls., four hours' flow being through a three-eighths inch choke on top and bottom, and 20 hours through a quarter-inch choke on top and three-eighths inch choke on bottom. Working pressure was 350 pounds. Gravity of the oil is 23.3° A.P.I. The sand, in which the well has been completed, probably is Pliocene.

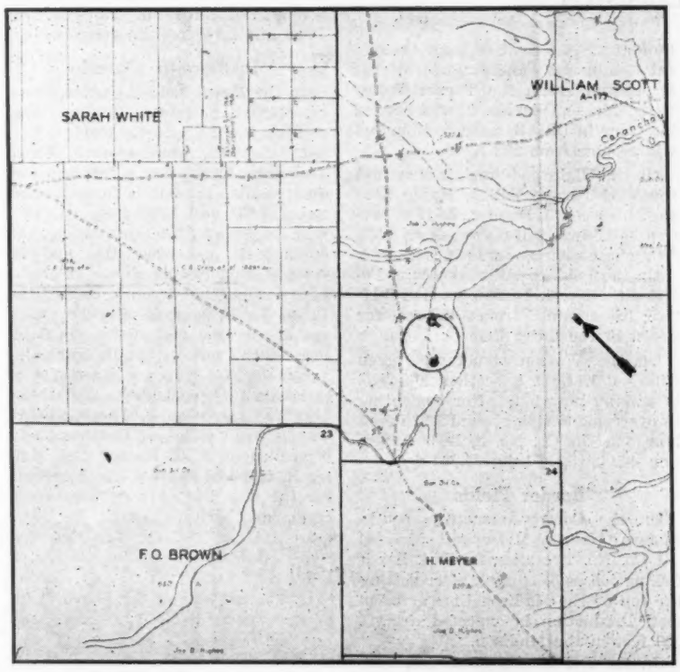
Wharton County

Another new field for Wharton County apparently has been opened with the completion by Texas Co. of No. 1-B Pierce, E. T. R.R. Survey, Abstract 108, estimated good for 2,000,000 feet of dry gas daily from sand at a total depth of 5,537 feet. This well is more than 2 miles west of the Texas Co.'s Withers pool, opened recently, and is generally considered as marking a separate pool. As such, this is the third consecutive field opened by the Texas Co. on the Pierce Ranch. The others being Picketts Ridge, and Withers. Picketts Ridge is 8 miles north of the Withers field and the new wildcat gasser.

Picketts Ridge now is one of the most active fields on the Texas Gulf Coast with seven to eight rigs running. During the week, the Texas Co. completed its No. 21-A Pierce in this field flowing initially 265 bbls. in the first 12 hours through a quarter-inch choke with 530 pounds pressure on the tubing and 600 pounds on the casing. Total depth is 4,712 feet. This is known as the "A" block. At Withers, known as the "C" Block, the Texas Co. completed another well, No. 6-C, flowing 18 bbls. hourly through a quarter-inch choke with 475 pounds pressure on the tubing and 550 pounds on the casing. Total depth is 5,567 feet.

The Hardin area of Liberty County received another setback the past week with the failure of Jack Frazier and associates No. 1 George Searles, Amos Green Survey, which was abandoned as dry at 7,701 feet.

In the Amelia district, west of Beaumont, Jefferson County, Texas Gulf Coast, interest is centered on Henry J. DeArman No. 1 First National Bank. This test, located 2½ miles north of any development of the Amelia field, late in the week was drilling below 6,100 feet. It is reported to have passed several sands showing gas and is believed to be running favorably. Whether it is related to the Amelia field, or is on a possible separate structure, remains to be seen. McCarthy No. 1 Langham, in the north end of the development, is down 5,900 feet. This is the third test by this operator, the first being a producer, the second a blow-out and lost hole. In the Amelia field proper, Humble Oil & Refining Co. was bringing in its No. 2 Guinn through perforations at 6,771-74 feet.



Area 7 miles southwest of Hitchcock, southwestern Galveston County, where Sun Oil Co. recently completed its No. 1 Hughes, a wildcat, as a shallow producer, opening a new field. Map shows the location of the second test, 933 feet northeast, which will be drilled with a light rig

Anahuac Field

Further definition of the southeast end of the Anahuac field in Chambers County has been given with the failure of Humble Oil & Refining Co. No. 18 Middleton, section 62, which was abandoned as dry at 7,386 feet. Two additional producers were added, Humble No. 5 Broussard-Hebert, section 59, southeastern end, flowing 14.9 bbls. per hour through a quarter inch choke, 6,978 feet; and Sun Oil Co. No. 18 White, James McGahey, a westward extension of the north end of the field, which flowed 27.03 bbls. per hour, 7,088 feet.

Development of the Hastings field, which heretofore has been confined to Brazoria County side of the line, is being extended to Galveston County with the starting of a test by Stanolind Oil & Gas Co. on the Elliott 20.63-acre tract in the William Henry Survey. The location is 330 feet at right angles from the northeast line of the tract, and 330 feet at right angles from the Galveston-Brazoria County line, in Galveston County. The location marks a substantial extension eastward.

Changes in Property

Texas Gulf Producing Co. has taken over the property of Horace M. Smith at Shepherd's Mott, in Matagorda County. This consists of approximately 800 acres, on which there is one non-commercial well, No. 1 Wadsworth, producing approximately 5 bbls. of oil daily from a sand at a total depth of 8,853 feet, completed last November. A second test, No. 2 Wadsworth, has been drilled to below 1,300 feet, where it has been shut down for several months. With the assistance of Shell Petroleum Corp. and several other companies, Texas Gulf Producing Co. will resume drilling in this test. The Wadsworth well is the only production at Shepherd's Mott.

Texas Gulf Producing Co. completed a trade for the purchase from Frank Means and associates of approximately 3,000 acres of the Blakely property around the north and northeast side of the Blue Ridge dome, Fort Bend County. It was on this property that a new deeper sand was opened for production within the last several weeks. Texas Gulf Producing Co. is starting two additional tests.

Definite location has been made for the first test on the Magnet prospect in southern Wharton County. The location was taken out the past week by H. C. Cockburn for No. 1 fee, in the J. Smith and H. McKinzie Survey, 1,610 feet south and 1,525 feet west of the northeast corner of the survey, being in the east part of Lot 8, Block 111, Missouri Lincoln Trust Co. subdivision.

Coastal Louisiana

In Coastal Louisiana attention is being directed to Magnolia Petroleum Co. No. 1 Alvin Hebert, located in section 13-12s-9w, on the Big Lake prospect on the east side of Calcasieu Lake, Cameron Parish. This test, a half mile east of the same company's No. 1 J. B. Broussard estate, which was completed last December in a sand at 7,960 feet as a distillate producer, cored a sand showing oil at 8,618 feet. The Broussard test was drilled to a total depth of 9,501 feet, finding a succession of sands, and with casing cemented on bottom, tested the sands consecutively through perforations from the bottom up. Magnolia has approximately 17,000 acres under lease in the block.

Cheneyville Extended

The Cheneyville field, in Rapides Parish, Coastal Louisiana's first "Conroe trend" field, is being extended northward a location by the Texas Co. No. 1 Weil, which on a drill stem test in the Cockfield sand at 5,638-77 feet with three-eighths inch choke on bottom of drill stem and a quarter-inch choke on top flowed at the rate of 11 bbls. an hour. Casing has been cemented at 5,645 feet. It is 550 feet north and 495 feet west of No. 2 Weil, completed in April. This will make the fifth consecutive producer for the field, opened last December by Amerada Petroleum Corp., which has three wells to the west and southwest of the Texas Co. producers.

Pools in the Gillis district of Calcasieu Parish, Louisiana, contributed a number of new producers the past week with several extensions. Fohs

Oil Co. No. 11 Castle, a 1,000-foot southeastward extension of the English Bayou pool, was flowing at the rate of 450 bbls. daily through a quarter-inch choke while cleaning itself, and showing a working pressure of 3,650 pounds. Sand is at a total depth of 7,068 feet. Union Surphur Co. No. 16 State, a quarter mile westward extension of Old Town Bay pool, flowed initially at the rate of 504 bbls. daily through a quarter-inch choke with 530 pounds pressure from sand at 6,750-54 feet. The same company's No. 8 Powell, same pool, flowed initially at the rate of 509 bbls. through quarter-inch choke, 700 pounds pressure at a total depth of 6,730 feet. The Texas Co. No. 9 Nickerson, another completion, flowed at the rate of 540 bbls. daily, 17/64-inch choke, 510 pounds pressure, at 6,752 feet. Several other wells were testing over the week-end.

Canadian Fields

Completions and Operations in Northwest and in Ontario

By VICTOR LAURISTON

CHATHAM, Ontario, June 13.—In section 28-18-2w5, South Turner Valley, Alberta, British Dominion Oil & Development Corp. No. 4, LSD 6, is below 6,378 feet on a deep test of the lower horizons of the Madison limestone. Production from the upper horizons of the lime in May averaged between 70 and 80 bbls. a day. On the west side of the structure in the same section, Turner Valley Royalties No. 1, LSD 13, is below 6,622 feet and more than 226 feet in the Madison. Farther north, Sterling Pacific No. 3, LSD 13, section 33-18-2w5, is below 1,774 feet.

In section 21-18-2w5, Highwood Sarcee Oils No. 2, LSD 1, is in a hard formation below 5,159 feet. It is in the southeast corner of the section and testing a potential extension of the structure about a half mile south of Union-Freehold No. 1 in LSD 8, which was a small producer. In the north end of the section, Sovereign Royalties No. 1 Myers & Wright, LSD 14, offsetting Highwood-Sarcee No. 1 producer to the west, will deepen from 2,333 feet where 12½-inch casing was cemented.

Aldersyde District

In the Aldersyde-De Winton area east of Turner Valley, Arca Development Corp. No. 1, NW section 24-18-1w5, is below 1,431 feet. Farther east and north, Ranchmen's Gas & Oil Co. No. 1, LSD 16, section 13-20-29w4, is below 6,744 feet.

On the De Winton structure, to the north, Wales Petroleum No. 1 Anglesey-Lakeview, LSD 1, section 22-21-1w5, will deepen from 4,500 feet.

On the New Valley structure, McLeod Oil Co. No. 1 New Valley, LSD 4, section 6-21-2w5, is below 4,820 feet carrying casing behind the tools.

Tests in the Foothills

In the Forest Reserve area west of Olds, Hunter Valley Oil Co. No. 1 McLaren is below 5,578 feet.

On the Jumping Pound structure west of Calgary, Northwest Co. No. 4 Bow River, LSD 2, section 31-24-4w5, is below 1,140 feet with no important shows yet.

On the Moose Dome, 45 miles west of Calgary, Moose Oils No. 1, LSD 15, section 29-22-6w5, shut down for six years, sprayed light crude over the derrick when opened recently. It was left unfinished in the Devonian lime at 2,834 feet after an unsuccessful fishing job; and is much deeper structurally than the Turner Valley wells. Moose Oils No. 2 was started last year in LSD 8, same section, and will resume from 252 feet.

On the Highwood-Sinclair structure south of Turner Valley, Maple Leaf Royalties No. 1 Banner, LSD 6, section 34-17-3w5, will deepen from 2,597 feet where some gas was encountered.

On the Pekisko Hills structure, Pekisko Co. No. 1, LSD 6, section 6-17-2w5, has resumed from 3,480 feet for a test of the lower lime horizons.

On the Watson structure, Raven Oils No. 1, LSD 1, section 20-9-2w5, is making new hole after cementing to overcome caving around 1,225 feet. Mar Jon Oil Co. No. 3, LSD 3, section 4-10-2w5, is below 4,625 feet.

Border Fields

On the Comrey structure, southeastern Alberta, McDougall-McLeod Oil Co. No. 1, section 9-1-5w4, has a fishing job at 3,620 feet, after getting the top of the Madison lime at 3,540 feet. Production is expected around 200 feet in the Madison.

On the Del Bonita structure, Terminal Oil Co. No. 1, H. Orcutt location, NE quarter section 18-1-21w4, is cleaning out cavings and will deepen 50 feet in the lime with standard tools, when production test will be made. The hole bottoms 85 feet in the Madison at 5,112 feet. It has some light crude production and considerable gas. The rotary outfit is being moved to Sunshine Oils No. 1, LSD 10, section 19-1-21w4, about a mile north, where derrick is up. The Sunshine test will utilize gas piped from Terminal No. 1 for drilling.

Wainwright Field

In the Wainwright field, east central Alberta, Montreal-Alberta Oil Co. No. 1, LSD 2, section 15-45-7w4, is standing in the lime at 3,390 feet, waiting for equipment for a production test, which will be made about the end of the month. The production encountered in the lime is a light green crude, very much lighter than heavy asphaltic crudes encountered in the Cretaceous formation at 2,000 to 2,200 feet. There has been considerable leasing in the Wainwright field since the strike, and Pacalta Oils, Ltd., of Calgary has secured an exploration permit covering 12,220 acres in Townships 46, 47 and 48, Ranges 5w4 and 6w4. The Pacalta company's permit area covers a portion of the Battleview anticline, reported on recently by Dr. G. S. Hume, of the Geological Survey of Canada.

Alberta Prospecting Permits

Alberta prospecting permits taken out in the week ending June 4 covered approximately 25,000 acres between the Montana boundary and the Red Deer River.

Saskatchewan Oil Show

In eastern Saskatchewan, about 90 miles north of Regina, Simpson Oil Co. No. 2 LSD 2, section 11-29-24w2, is below 2,200 feet. Location is some distance from Simpson No. 1, which is producing salt brine from 3,445 feet. No. 1, with elevation at 1,768 feet, got a showing of oil at 2,116 feet, and No. 2 was located higher on structure. The log of No. 2 shows a thick vaseline-like substance at 2,007 feet, a thick crude at 2,030 feet and free oil at 2,096 feet, with indications of a fairly continuous saturation in a tight oil shale between 1,900 and 2,139 feet.

Drilling in Ontario

In the Dawn field, Lambton County, Ontario, Petroleum Products Syndicate's No. 2 (formerly Gubb & Russell), Lot 22, Concession 3, Dawn Township, which had a fair gas production from the Salina formation between 1,655 and 1,660 feet, was shot with 50 quarts. The shot more than doubled the gas production and developed considerable shows of crude. Location is some distance east of the Union Gas Co.'s crude oil wells, which are in the west end of the gas field. Petroleum Products Syndicate has let a contract to Stover & Rawlings of Chatham for two additional wells in Lot 22, Concession 3. The syndicate has its head office at Chatham, and is headed by S. G. Russell and Walter H. Gubb of Detroit. The locations for the new tests are on the Weese farm, and drilling outfit is being moved from the Massey location south of Pain Court, in the Dover field, Kent County.

In the east end of the Dawn field, Perdue Syndicate No. 1, Barnes farm, Lot 25, Concession 7, Dawn Township, is below 1,350 feet.

In the Eden field, Olga Gas No. 3, Claude A. Wilson farm, Lot 24, Concession 8, Bayham Township, finished with natural production of 200,000 feet a day and has been turned into the line. Dominion Natural Gas Co. is taking production.

In the Brownsville field, Oxford County, Aloka Oil & Gas Co. No. 4 has been located in Lot 23, Concession 12, Dereham Township, 1,000 feet east of Aloka No. 3, which finished good for 2,300,000 feet a day. Farther east, Dexter Oil Co. No. 1, Childs farm, Lot 21, Concession 12, which failed to get production in the upper sand at 910 feet, is deepening close to the Clinton sand, where a lower gas horizon is looked for. Smith No. 1, Lot 22, Concession 12, east of the Aloka gassers, is shut down at 200 feet on account of quicksand. West of the producing area, Archie Treleaven No. 3, Lot 23, Concession 11, is on top of the upper sand at 910 feet.

P. L. Jackson, of Dunnville, representing Toronto interests, is moving a rig to a location 3½ miles west of Tillsonburg and just north of King's Highway No. 3. The location is on a line between the Brownsville field and similar production secured last year by the Middleton-Norfolk Oil & Gas Co. in Middleton Township, Norfolk County.

Nomenclature Map

A complete nomenclature map of the Mid-Continent oil fields has just been completed by E. C. Jacobson, Tulsa draftsman, with offices at 530 McBirney Building, who has been working on the map for the last two years. It is said to be the first complete map showing all proven pools in the Mid-Continent area, as well as a majority of the pools in the neighboring Gulf Coast and Rocky Mountain areas.

The map covers all of Oklahoma, Texas and Kansas; west portion of Louisiana; southwest portion of Arkansas; eastern New Mexico; eastern Colorado and southwest Nebraska. It measures 66 inches by 90 inches, and is drawn to the scale of 1 inch to 12 miles. The accompanying index gives the name and location of each field, as designated by representative nomenclature committees. Mr. Jacobson also recently has completed nomenclature maps of Oklahoma, Louisiana, Kansas and Colorado, to the scale of 1 inch to 8 miles, and of Texas to the scale of 1 inch to 12 miles. On the general Mid-Continent map all of the states are shown in their correct geographical relation to each other. Oil pools are in green, gas fields in red.

California Fields

(Continued from Page 68)

bbls. of clean 40.6 gravity oil per day. This new well was finished with a 6⅝-inch liner containing 67 feet of perforated which was cemented through perforations at 2,786 feet. In the Kettleman North Dome field the Standard Oil Co. recompleted its No. 21-19-J and returned it to production flowing 725 bbls. of unusually clean 37.1 gravity oil per day after redrilling and deepening the hole to 8,912 feet. The Associated Oil Co. has staked location for No. 1 Murphy, a wildcat which will be drilled in the Sargent area of San Benito County, in section 5-12-4. This test will be located approximately 3 miles southeast of the old Sargent field and about 2,000 feet southwest of a duster drilled by the Shell Oil Co. and abandoned at 4,430 feet.

Michigan Fields

(Continued from Page 66)

Township, Gratiot County, on the V. G. Stall lease, one in section 29, Victor Township, Clinton County, and one on the Vinton lease, section 27, Greendale Township, between the original Mount Pleasant field and the Yost area near the Porter pool.

Socony-Vacuum Oil Co. also is planning a wildcat test in southeastern Michigan near the Dundee field in Monroe and Lenawee Counties.

Twelve state permits to drill were issued last week but all were for tests in proved areas in Mecosta, Midland and Montcalm Counties.

L. G. Donnellon, former Texas and Oklahoma oil operator, has been named president of the Advance Oil & Gas Corp., of Detroit, a new Michigan oil development concern. G. F. Wilcox, active in Michigan oil development for several years, is vice president, Percy L. Prout is geologist.

Oklahoma Operations

By
DAL DALRYMPLE

FIRST WELL ON STATE LAND AT CAPITAL HAS BIG YIELD

The capitol extension of the Oklahoma City field set the pace for Oklahoma the past week with 13 producing wells officially completed and several others already in the pay sand, but that prolific sector shared attention with other interesting areas in the state. The erratic wildcat producer in Love County, the new deep oil well in the Cement field, another producer in the Tipton area of Jackson County, a well that extended the Britton pool, and a big well at Crescent were among the more interesting state tests. Several wells were completed in the South Burbank area of Osage County, and the Fitts field had its customary quota of completions.

Testing and swabbing continued at the Amerada Petroleum Corp. and Stanolind Oil & Gas Co. No. 1-A Westheimer & Daube, SW SE SW section 27-6s-2e, Love County wildcat. It has been an erratic producer since it was plugged back from 7,363 feet to Viola lime at 2,430 to 2,790 feet. It flowed 1,819 bbls. of 38.5 gravity oil during the first week. It was acidized again with 8,000 gallons last Friday, and after swabbing for a time it flowed 250 bbls. of oil and then went dead again. On the other side of Love County, Sinclair Prairie Oil Co. No. 1 Stockton, SE SE SW section 26-6s-2w, old total depth of 8,785 feet, cemented off 720 feet of lost drill stem and was drilling by. Major oil companies continued to lease acreage in the county.

Marathon Oil Co. and others No. 4 Marchand, SW SE NW section 2-5-9w, in the Cement field, flowed 1,077½ bbls. of oil in 24 hours, with 71,000,000 feet of gas. It found a new sand for the area at 6,285 to 6,367 feet. Gulf Oil Corp. No. 2 Shirley, SE NW NE section 6-1s-19w, extended the Tipton pool one location to the southwest, flowing 62 bbls. of oil in one hour from Cisco lime at 2,604 feet before drilling in. Top of the Cisco was higher than other wells in the pool. Sinclair Prairie Oil Co. and others No. 1 Dills, NE NE NW section 17-13-3w, was shut in for tubing and tankage after flowing 251 bbls. of oil in five hours, with 7,000,000 feet of gas. It had Wilcox sand at 6,630-35 feet, total depth 6,670 feet. It extends the Britton pool one-fourth mile west. Continental Oil Co. No. 2 McConnell, NW SE SE section 28-17-4w, in the Crescent field, apparently is that sector's largest producer. It flowed 75 bbls. of oil in three minutes after being shut in for a week, and again was shut while separator is erected. Originally it flowed 1,000 bbls. in one hour and 45 minutes after drilling to 6,306 feet in Wilcox sand topped at 6,207 feet.

Capitol Extension

In the capitol extension area at Oklahoma City, Sunray Oil Co. and Phillips Petroleum Co. No. 1 State, east of the Governor's mansion and the first well on state owned land to find the pay, made potential of 11,263 bbls. of oil, from total depth of 6,460 feet. Operators drilled deeper and planned to test again. At the extreme north end of the field, Big Chief Drilling Co. and others No. 1 Hagenmeister, in section 15-12-3w, was reopened and flowed at the rate of 15 bbls. of oil an hour from 6,510 feet after being classed as a dry hole earlier in the week.

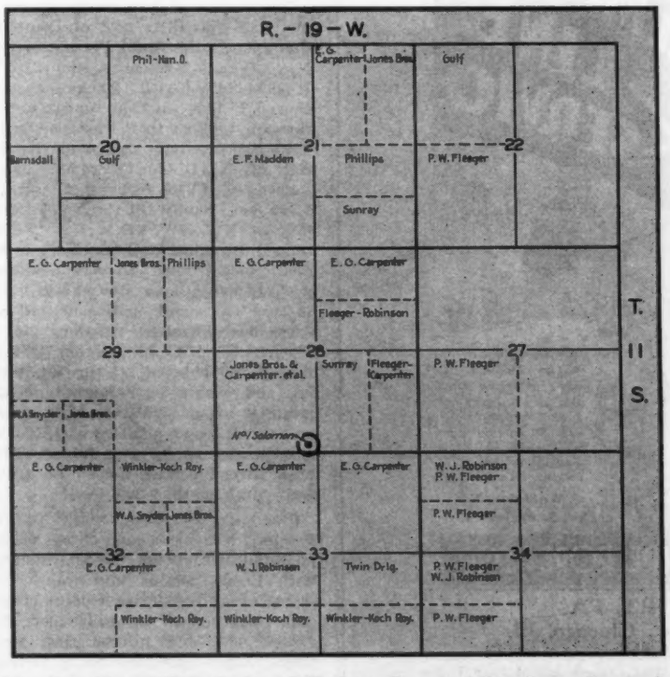
Announcement was made during the week that Phillips Petroleum Co. had bought half interest in the Sunray Oil Co.'s state lease, and a like interest in the K. & L. Petroleum Co.'s Harn lease, south of the capitol. The No. 5 well on the State lease and No. 1 well on the Harn lease were drilling in.

W. J. Armstrong, state conservation officer, informed operators that in bringing in new wells in the north end of the capitol area, it will be necessary to clear some oil before allowable is established. Each operator was asked not to run any crude until notifying the conservation office and estimating the amount necessary. Mr. Armstrong asked the purchasing companies not to run the crude until permission is given. He said it was necessary for the state to stay within its allowable in June, and if companies are going to be over their quota on account of bringing in new wells, they will have to make up the difference by not producing other wells in the zone to that extent.

Oklahoma County

Fifteen wells were officially completed in the Capitol extension area of the Oklahoma City field, and locations for five tests, all on the northwest side of the extension area, were abandoned. The completed producers were as follows:

Barnsdall Oil Co. No. 1 Dawson, NE NE SW NE section 22-12-3w, was completed at 6,439 feet, total depth, producing from second Wilcox sand topped at 6,386 feet. It flowed 4,206 bbls. in six hours, to give it a potential of 17,392 bbls. Same operator's No. 1 Lyons, SW NW NE section 22-12-3w, topped second Wilcox sand at 6,442 feet; total depth, 6,511 feet. It flowed at the rate of 80 bbls. of oil per hour at 6,506 feet, but salt water killed the well and it was plugged back to 6,494 feet to complete. Then it flowed 79 bbls. in 24 hours on gas lift. Barnsdall Oil Co. and Bay Oil Corp. No. 1 Edwards, C SL SW SE section 15-12-3w, topped second Wilcox at 6,391 feet; total depth, 6,456 feet. It flowed 5,034 bbls. in six hours and made potential of 21,237 bbls.



Location of a wildcat being drilled northeast of Sasakwa, Seminole County, Oklahoma, by J. E. Crosbie, Inc., and Blankenship & Quiett, in NE section 30-6-8. It is a Wilcox sand test

(Mid-Continent Map Co., Tulsa, Okla.)

Phillips Petroleum Co. No. 1 Neff, NW NE SE section 22-12-3w, flowed 3,139 bbls. in six hours and made potential of 13,118 bbls. Top of second Wilcox sand was 6,390 feet; total depth, 6,506 feet. Same operator's No. 1 Hoagland, SW NE SE section 22-12-3w, topped second Wilcox at 6,378 feet; total depth, 6,527 feet. It flowed 4,089 bbls. in six hours and made potential of 16,484 bbls. Same operator's No. 1 Smiley Harrell, SE NE SW SE section 22-12-3w, flowed 2,955 bbls. in six hours, making potential of 11,596 bbls. Top of second Wilcox sand was 6,358 feet; total depth, 6,511 feet. Phillips Petroleum Co. and Black Gold Petroleum Co. No. 1 Annie Sawyer, SW NW SE NE section 22-12-3w, topped second sand at 6,382 feet; total depth, 6,470 feet. In six hours it flowed 2,568 bbls., making potential of 11,451 bbls. Same operators' No. 2 Annie Sawyer, SW SE NE section 22-12-3w, topped second Wilcox at 6,393 feet; total depth, 6,490 feet. It made potential of 12,481 bbls., flowing 2,986 bbls. in six hours. Phillips Petroleum Co. and R. M. Murray No. 1 Murray, NE SW NE section 22-12-3w, flowed 2,617 bbls. in six hours to give it potential of 10,698 bbls. Top of second sand was 6,390 feet; total depth, 6,474 feet. Phillips Petroleum Co. and British American Oil Co. No. 1 Liberty, NW SE SE section 22-12-3w, topped second sand at 6,362 feet; total depth, 6,519 feet. It flowed 3,844 bbls. in six hours, making potential of 15,541 bbls.

British American Oil Co. No. 1-A Warr, SE NW SE section 22-12-3w, was completed at 6,405 feet, total depth. Top of second sand was 6,355 feet. It flowed 3,904 bbls. in 14½ hours, naturally and on gas lift. Same operator's No. 4 McNabb Park, SE NE NE section 22-12-3w, made potential of 17,474 bbls., flowing 4,423 bbls. in six hours. Second Wilcox sand was topped at 6,398 feet; total depth, 6,472 feet.

Empire Oil & Refining Co. and Heenan & Coe No. 3 Levy "A," SE NE NW section 22-12-3w, on the northwest side of the extension, was abandoned at 5,422 feet, total depth. No Wilcox sand was logged. Same operators' No. 2 Levy "A," NE NE NW section 22-12-3w, was abandoned at 5,705 feet.

Anderson & Prichard Oil Co. No. 1 Cooke, NE NW NW section 22-12-3w, made potential of 1,258 bbls. of oil and was completed at 6,472 feet, total depth. It flowed 315 bbls. in six hours. Second Wilcox sand was topped at 6,412 feet.

Empire Oil & Refining Co. and Heenan & Coe abandoned five locations on Levy property in NW section 22-12-3w, on the northwest side of the field.

New work starting in Oklahoma County follows: Sunray Oil Co. No.

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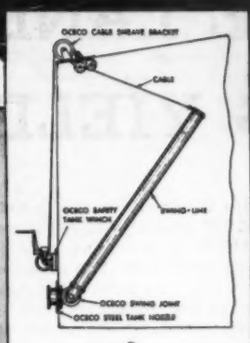

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7 State, SW NW NE NE section 27-12-3w, building rig; same operator's No. 8 State, SE NE NE NE section 27-12-3w, digging cellar; the No. 9 State, SE NW NW NE section 27-12-3w, digging cellar; the No. 10 State, NE NW NW NE section 27-12-3w, location; Slick-Urschel Oil Co. and others No. 1 Hannum, NW NW SW section 20-13-3w, digging cellar.

Estimated Production

Estimated daily average production of Oklahoma for the week ending June 13 and for the preceding week is as follows:

	Barrels	
	June 13	June 6
Allen	9,350	8,950
Asher-West Asher	800	800
Burbank	7,650	7,750
South Burbank	15,750	16,500
Balance Osage	23,500	23,500
Blackwell district	4,850	4,875
Bristow-Slick	8,375	8,250
Chandler	4,050	3,950
Crescent	5,500	4,900
Cromwell	3,700	3,700
Cushing-Shamrock	11,625	11,550
Duncan district	4,000	4,025
Edmond	12,825	10,500
Fish	8,575	9,275
Fitts	50,700	52,175
Gray	1,600	1,625
Graham	4,150	4,100
Healdton	9,275	9,300
Hewitt	4,475	4,475
Holdenville	1,050	1,050
Keokuk	6,750	5,975
Konawa	1,775	1,750
Lucien	12,950	13,100
Marshall-Lovell	975	975
Oklahoma City	151,275	134,775
Olympic	8,000	7,925
Papoose	1,075	1,025
Polo	3,200	3,150
Sasakwa and townsite	3,100	3,825
Sholem-Alechem	3,650	3,575
Seminole field:		
Bowlegs	12,450	12,725
Carr City	6,825	6,900
Earlsboro	7,325	7,275
South Earlsboro	825	825
East Earlsboro	10,725	10,800
Little River	13,550	12,875
East Little River	1,175	975
Maud	975	975
Mission	2,550	2,600
Seminole	11,325	11,525
East Seminole	3,300	3,025
Searight	5,350	4,525
Total Seminole	76,375	75,025
St. Louis-Pearson	25,875	25,800
Tatums	3,350	3,325
Tonkawa-Garber-Thomas	5,500	5,450
Wewoka	4,075	4,050
Yale-Jennings	4,025	3,975
Other pools	63,500	62,500
Total Oklahoma	567,250	547,450

Pontotoc County

The largest of five producers completed in the Fitts pool of Pontotoc County was the Stahl Petroleum Co. No. 5 Dennis, SW cor. section 21-2-7. It was acidized with 3,000 gallons and flowed 75 bbls. an hour for six hours through tubing; then was reacidized with 10,000 gallons and made potential of 3,741 bbls. Bromide was topped at 4,245 feet; total depth, 4,350 feet. Skelly Oil Co. No. 1 Park College, NW NW NE section 28-2-7, topped Bromide at 4,110 feet; total depth, 4,315 feet. It was acidized with 12,000 gallons, flowed 386 bbls. in two hours and made potential of 3,686 bbls. Fleetborn Oil Corp. No. 3 Morin, SE SW SE section 20-2-7, flowed 589 bbls. of oil through tubing and casing in 2 hours and 25 minutes after acidizing with 4,000 gallons. It was reacidized with 12,000 gallons and made potential of 3,172 bbls. Bromide was topped at 4,190 feet, total depth, 4,305 feet.

Magnolia Petroleum Co. No. 2 Woolley, NE cor. section 28-2-7, made potential of 2,995 bbls. after acidizing with 10,000 gallons and was completed at 4,310 feet, total depth. Bromide was topped at 4,140 feet. It flowed 470 bbls. in the first two hours. Same operator's No. 9 Metropolitan Life, NW NE SW section 27-2-7, topped Hunton at 3,204 feet; Sylcan shale, 3,525 feet; total depth, 3,535 feet. After acidizing a second time it flowed 304 bbls. through casing and tubing in 8 hours and 50 minutes, with 5,000,000 feet of gas. Same operator's No. 2 Norris, NW SW SE section 18-2-7, was dry and abandoned at 2,000 feet, total depth.

Senora Oil & Gas Co. No. 3 Skirvin, SE SW NE SW section 3-4-6, encountered water and was dry and abandoned at 1,127 feet, total depth.

New work in Pontotoc County: Carter Oil Co. No. 2 Brown, NE SE SE section 25-2-7, an old well plugging back, waiting on cement; Stahl Petroleum Co. No. 6 Dennis, NE SW SW section 21-2-7, building rig; E. H. Moore and others No. 1-A Moody, NW cor. section 26-2-7, location, Magnolia Petroleum Co. No. 13 Metropolitan Life, SW NE NE section 27-2-7, cellar; same operator's No. 14 Metropolitan Life, SE NW NE section 27-2-7; same operator's No. 15 Metropolitan Life, NW NE NE section 27-2-7, rigging up rotary; Simpson, Feld & Westheimer No. 1-A Westheimer, SE NE NE section 27-2-7, drilling at 205 feet; Skelly Oil Co., NE NE NW section 28-2-7, building rig; Lake Oil Co. No. 7 Robertson, SE NE SW section 19-5-5, drilling at 585 feet; Morris & Tindal No. 4 Call, NW cor. section 22-5-8, total depth 541 feet, fishing; Larson & Small No. 2-A Robertson, NW SW NW SE section 23-5-8, spudded; Sunray Oil Co. No. 5 Shields, SW NE SE section 33-5-8, location.

Osage County

Thirteen wells were completed in Osage County, as follows: Skelly Oil Co. No. 2 Smith, SW SE NW section 26-26-6, topped Bartlesville sand at 2,850 feet; total depth, 2,927 feet; was shot with 150 quarts and flowed 1,212 bbls. in 24 hours. Same operator's No. 3 Smith, SW NE NW section 26-26-6, flowed 1,473 bbls. in 24 hours from sand topped at 2,844 feet; total depth, 2,925 feet. Carter Oil Co. and others No. 9 Presbury, C S half NE NE section 10-25-6, topped sand at 2,674 feet; total depth, 2,767 feet, and flowed 727 bbls. in 21 hours. Champlin Refining Co. and others No. 1 Presbury, NW NE SE section 22-25-6, topped sand at 2,705 feet; drilled to 2,757 feet; plugged back to 2,745 feet and flowed 116 bbls. in 24 hours. Kewanee Oil & Gas Co. No. 4 Hale, SE NW SE section 27-26-6, flowed and swabbed 145 bbls. in 24 hours after shot; top of sand was 2,870 feet; total depth, 2,950 feet. Coralena Oil Co. No. 11 Carroll, SE NE SW section 15-25-6, flowed 60 bbls. in 24 hours from sand topped at 2,735 feet; total depth, 2,780 feet. Champlin Refining Co. No. 5 Terrall, SW NW SE section 15-25-6, topped sand at 2,787 feet; total depth, 2,815 feet; was shot and flowed 25 bbls. in 24 hours. Sinclair Prairie Oil Co. and Indian Territory Illuminating Oil Co. No. 8 Osage, SW NW SE section 9-25-6, topped sand at 2,811 feet; was bottomed at 2,836 feet; plugged back to 2,834 feet, and flowed 94 bbls. through tubing in six hours, making potential of 298 bbls.

Link Oil Co. No. 8 Osage, SE NW NE section 8-22-12, had Tucker sand at 1,815-59 feet, total depth, was shot and pumped 15 bbls. in 24 hours. Indian Territory Illuminating Oil Co. No. 422 Osage, NW SE SE section 34-24-8, had sandy lime and sand at 807-826 feet, total, and produced 2,000,000 feet of gas. Tide Water Oil Co. No. 3 Graves, SE SE NE section 9-24-7, had Bartlesville sand at 2,539-70 feet; total depth, 2,592 feet; plugged back to 2,570 feet, was shot and flowed

140 bbls. in 24 hours. J. H. Alexander and others No. 6 Osage, NW NW SW section 36-25-11, pumped 6 bbls. in 24 hours from sand topped at 1,643 feet; total depth, 1,700 feet. Midco Oil Corp. and others No. 1 Osage, NW NW SE section 11-23-6, wildcat, topped Chat at 2,877 feet, and was dry and abandoned at 2,893 feet, with a hole full of water.

Three old Osage wells were deepened and recompleted. Pueblo Oil Co. No. 1 Osage, NE NW NW section 14-21-8, was abandoned at 2,530 feet after deepening from 2,289 feet. Central Petroleum Co. No. 3,432 Osage, NE NE SE section 34-29-10, was deepened from 1,611 feet to 1,765 feet, was acidized and shot and pumped 4 bbls. in 24 hours. Carter Oil Co. and others No. 2 Adlum C-42, was deepened from 2,867 feet to 2,890 feet, base of Bartlesville sand, and after shot increased production from 200 bbls. to 561 bbls.

Work starting in Osage County was as follows: Carter Oil Co. and others No. 5 Denoya, NE NE SW SW section 10-25-6, digging cellar; same operators' No. 12 Beam, NE NE NW NW section 15-25-6, digging cellar; same operators' No. 3 Mary Mosier, SE NE NW section 34-26-6, location; the No. 8 Mosier, NW NW NE section 34-26-6, location; the No. 8 Williams, C S half SE NW section 35-26-6, rigging up machine; Skelly Oil Co. No. 5 Smith, NE NW NW section 26-26-6, cellar; Bay Oil Corp. and others No. 2 Osage, NW section 25-22-7, location; Ray Branstetter and others No. 1-A Osage, NW NE NW section 33-22-11, rigging up machine; Harland Oil Co. No. 78 Osage, NW NE NE section 25-24-11, had a showing of oil at 1,450 feet.

Hughes County

Carter Oil Co. No. 8 Hampton, NE SE NE section 1-9-8, in the Olympic area of Hughes County, topped Senora sand at 1,693 feet; total depth, 1,753 feet; was shot and flowed 152 bbls. in 10 hours, completed. George Manahan and others No. 5 Oliphant "E," topped sand at 1,669 feet and was completed at 1,699 feet, total depth. It swabbed and flowed 40 bbls. in 24 hours after a shot. Amerada Petroleum Corp. and Stanolind Oil & Gas Co. completed No. 1 Mann, SW SW NW section 6-9-9, at 1,706 feet, total depth, and after shot it flowed 29 bbls. in 24 hours. Top of Senora sand was 1,665 feet.

New work in Hughes County: Mid-Continent Petroleum Corp. No. 1 White, C SW SE section 5-8-10, cellar; George Manahan No. 6 Oliphant "E," NE SW NW section 1-9-8, building rig; Serran No. 2 Tucker, NW SE SE section 2-9-8, location.

Carter County

The deep pay discovery well in the Fox field of Carter County, the Carter Oil Co. and others No. 1 Carter-Williams, SW NE SW section 27-2s-3w, finally has been completed, with initial production of 3,309 bbls. in 24 hours from Simpson formation at 8,055 to 8,105 feet. Work was started at this well early in 1935 and in October it came in as a big producer, blowing wild for several days, from total depth at 8,088 feet. Estimates of production ranged as high as 10,000 bbls. daily. Drill pipe parted, a long fishing job resulted, and operators finally cemented off and redrilled in a new hole. It also produced 17,363,000 feet of gas with the oil when it again found the deep pay last April.

Twin State Oil Co. No. 2 Bridenthal, NE NW NE section 9-1s-3w, drilled to 2,857 feet, plugged back to 2,850 feet and was completed. It pumped 66 bbls. of oil and 11 bbls. of water.

The following work was started in Carter County: Skelly Oil Co. No. 2 Pierce "C," SE SE NE section 17-2s-2w, derrick; Shell Petroleum Corp. No. 41 McClure, NE SE SE SW section 5-4s-3w, machine; Pure Oil Co. No. 19 Westheimer & Daube, NW cor. section 10-4s-3w, machine.

Stephens County

Mudge Oil Co. No. 6 Anderson, SE SW SW section 10-3s-5w, in Stephens County, had sand at 1,466-80 feet, total depth, pumped 40 bbls. of oil in 24 hours and was completed. Raizen Brothers No. 7 Crosbie, SW cor. section 23-1s-5w, had sands at 350 and 377 feet, total depth 387 feet, and flowed 2 bbls. of oil daily. Nash and others No. 1 Saddler, NW NW SE section 30-2-4w, wildcat, was abandoned at 180 feet, total depth.

New work in Stephens County: Raizen Brothers No. 8 Crosbie, SE SE SW SW section 23-1s-5w, waiting on cement at 682 feet, total depth; same operator's No. 9 Crosbie, C E half SE SW SW section 23-1s-5w, drilling at 355 feet; Mudge Oil Co. No. 7 Anderson, NE SE SW SW section 10-3s-5w, waiting on cement at 340 feet, total depth.

Southwestern Oklahoma

In Comanche County, Earl Fisher No. 1 Rowell, NW NE SE section 21-2-10w, produced 18 bbls. of oil in 24 hours, completed. It had several series of Granite Wash and sand and was bottomed at 996 feet.

In Cotton County, Shasta Oil Co. No. 10 Chambers, NW NE SE section 2-2s-10w, had sand at 2,176-84 feet, pumped 22 bbls. of oil in 24 hours, and was completed at 2,196 feet, total depth. Same operator's No. 13 Cobb, SW SW NE section 2-2s-10w, was dry and abandoned at 2,205 feet, total depth.

New work in southwestern Oklahoma: In Cotton County, Shasta Oil Co. No. 8 Moore, SE SE NE SW section 2-2s-10w, derrick. In Jackson County, Gulf Oil Corp. No. 1 Ellis, NE SW NE section 6-1s-19w, derrick. In Greer County, John Hooser No. 1-A Price, SE SW NW NW section 25-7-21w, location.

Seminole County

Sinclair Prairie Oil Co. No. 3 Harjo, NE NW SE section 12-5-7, in the Allen area of Seminole County, topped Dolomite at 4,172 feet; Wilcox sand, 4,224 feet; total depth, 4,237 feet. It swabbed 659 bbls. in 24 hours, and later swabbed 1,738 bbls. in 48 hours, completed. Sinclair Prairie Oil Co. and Papoose Oil Co. No. 1-A Mathis, SW SE NE section 12-5-7, swabbed 1,223 bbls. in 23 hours and was completed at 4,155 feet, total depth. Wilcox sand was topped at 4,144 feet. W. B. Pine No. 3 Cheparney, NE NE SW section 12-5-7, had Wilcox sand at 4,220-33 feet, total depth, and swabbed 867 bbls. in 24 hours, completed. Deep Rock Oil Corp. No. 1 Lozier, NW SW NW section 20-9-7, an old well, plugged back from 4,137 to 4,000 feet, and flowed 390 bbls. in 22 hours.

New work in Seminole County: Sinclair Prairie Oil Co. and others

(Continued on Page 90)

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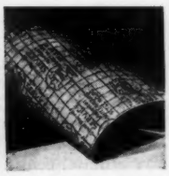

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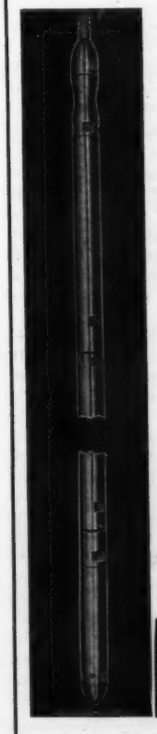

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North Louisiana, Arkansas

ATTENTION IS CENTERED ON SMACKOVER'S PERMIAN AREA

By MITCHELL TUCKER

SHREVEPORT, La., June 15.—The oil producing possibilities of the Permian zone on the northwestern flanks of the old Smackover pool are soon to be more clearly defined.

Six deep tests were started soon after completion of Phillips Petroleum Co. No. 1 Reynolds, SE NW section 27-15-15, as a gas-distillate producer. Two of these should reach the pay zone within the next 10 days. The Phillips-Reynolds discovery well topped what was presumed to be the Permian horizon at 4,904 feet, although its exact identity is questioned by some, and was completed at a depth of 4,926 feet. The well is now pinched in to about 4,000,000 feet per day, and at this rate of flow is making 65 bbls. of 53 degree gravity distillate per day.

Standard of Louisiana No. 3-B Reynolds, two locations southwest of the discovery well, is at a total depth of 4,912 feet in porous Permian, topped at 4,892 feet. The lime is well saturated with gas and oil. The crew will test after the casing job is completed. The pipe is now being run.

John Pugh No. 1-A Hildebrand, two locations further southwest, is now drilling at a depth of 4,518 feet. The results of these tests are looked upon as having great significance.

Lion Oil Refining Co. No. 1 Reynolds, one-half mile due west of the discovery well is drilling at 3,405 feet, while one-quarter of a mile further west Phillips Petroleum Co. No. 1 Harriss is drilling at 3,435 feet.

Active geophysical work has about been completed on the northern and northeastern flanks of the Smackover pool, and sufficient structure has been mapped to warrant additional tests in this vicinity if the wells now nearing completion yield favorable results.

Rodessa

Six routine completions were recorded in the Rodessa field last week, three on the Louisiana side and three in Cass County, Texas. Thirteen new locations were staked, nine in Louisiana and four in Texas, all within the proven limits of the pool.

The enormous daily waste of gas continues to be apparently ignored by some operators in this area, many of them seeking to get the maximum oil production, irrespective of the gas energy which must be blown into the air in order to do so. Many wells are incapable of efficiently producing their daily allowable of 275 bbls., and the result is that excessive gas is being wasted to make this possible. The gravity of the distillate produced from some wells on the southern edge of the field near the gas zone continues to rise, indicating that if the wells were flowed efficiently they would make no crude oil, only distillate. It is the opinion of some that a great many wells classified as "oil wells" at Rodessa are primarily gas wells.

Construction on two new gasoline plants was begun last week, one by the Rodessa Gasoline Co. and the other by the Glen Rose Gasoline Co. The combined capacity of these plants will be approximately 50,000,000 feet, and their operation should slightly relieve the acute gas wastage.

It is the common practice for plants in the immediate area of the major gas production to take only 1,000,000 feet of gas for each 50 bbls. of distillate delivered, and the result is that an enormous amount of gas energy is run to the flares and burned in order for the operator to sell as much distillate as possible. Rodessa distillate continues to bring a premium price over high gravity crude oil.

22 Wells Making Water

An unofficial check of wells making water in this field was made last week, showing that 22 wells were making some water with their oil production, all on the Louisiana side. The volume of water produced ranged from less than 1 to 44 per cent. Geologists are still undecided as to the exact source of this water. It first appeared in the lower section of the Young sand, but in other wells further down dip water was found to be absent. Whether this is bottom hole water, or that trapped in the formation, is still problematical. It has been proven that heavy pulling of wells high on the structure will result in them going to gas, and there is reason to believe that excessive withdrawals will cause the appearance of water on wells down dip.

Details of Rodessa completions for the last week follow:

J. Edward Jones No. 1 Gibson, SW corner SE SW section 22-23-16, flowed an initial of 43 bbls. per hour through a seven-sixteenths inch tubing choke. Young sand was topped at 5,970 feet, saturation encountered at 6,049 feet, and the well bottomed at 6,065 feet.

United Gas Public Service Co. No. 2 Harris, SE NE section 15-23-16, topped saturated sand at 5,995 feet, and was completed at 6,007 feet. The well produced 21 bbls. per hour through one-half inch tubing choke, with a tubing pressure of 150 pounds and a casing pressure of 425 pounds.

United Gas No. 4 Brewer Unit, in the NE corner of 55-acre lease in section 29-23-16, flowed 58 bbls. per hour initially through one-half inch tubing choke. Total depth 6,030 feet, in saturated sand, topped at 5,994 feet.

United Gas No. 1 Simpson, J. Young Survey in Cass County, Texas, topped the Hill zone at 5,798 feet, set 7-inch at 6,042 feet; saturation at 6,052 feet, completed at 6,077 feet.

United Gas No. 2 Eva Fields, on the J. Collum Survey in Cass County, Texas, flowed 63 bbls. per hour on an initial test through one-half inch choke, tubing pressure 100 pounds, casing pressure 175 pounds, saturated sand at 6,004 feet, total depth 6,048 feet.

American Liberty No. 4 Maxie, on the J. Collum Survey in Cass County, Texas, flowed 44 bbls. per hour through one-half inch tubing choke. The 5-inch casing was cemented at 5,972 feet, saturation encountered at 5,980 feet. Total depth 6,006 feet.

Production by Pool

Estimated daily gross production all companies week ending June 13, follows:

NORTH LOUISIANA

Bellevue	570
Caddo Light	4,045
Caddo Heavy	2,470
Converse	1,050
Cotton Valley	365
De Soto and Red River	1,410
Elm Grove	425
Haynesville	3,250
Holly	145
Homer	2,550
Pleasant Hill	160
Rodessa	54,410
Sarepta-Carterville	505
Urania	2,700
Zwolle	1,090
Total	75,145

SOUTH ARKANSAS

Champagnolle	2,885
El Dorado	2,155
Lisbon	295
Miller County	1,015
Nevada	880
Smackover Light	2,210
Smackover Heavy	17,890
Stephens	570
Urbana	1,845
Total	29,745

Texas side of Rodessa field, 4,165 bbls. daily.

Bossier Parish

Triangle Drilling Co. set surface pipe on No. 1-E Skannal, in the SE corner section 23-17-12, last week, on the southwestern edge of the Sligo field, and will have as its objective the Glen Rose horizon.

Caddo Parish

Pyramid Oil & Gas Co. No. 1-A S. R. Wheeler (Belchic & Laskey), section 16-18-16, again plugged back and tested at a depth of 4,833 feet, where salt water was still in evidence. The well is now standing for orders.

Coring to a total depth of 2,436 feet with no further showing of oil or gas, operators are preparing to abandon the Kennonwood Pool, Inc., No. 1 W. K. Henderson, in the NW cor. of section 15-19-15, three-quarters of a mile north of production in the Caddo field.

J. B. Hutchinson of Shreveport has been quite active in leasing immediately south of Shreveport for some time. The partial consideration for a great many leases around Township 16, Ranges 13 and 14, provides for a 2,600-foot test to be started immediately, to be located within 3½ miles of the leased premises.

Important leasing to the north of Shreveport last week carried as consideration the drilling of a 5,000-foot test prior to November 15, 1936. Three leases were executed to W. P. Leonard of Shreveport, each calling for a deep test to be made within 3 miles of properties in sections 23, 24 and 25, Township 19, Range 14. Another lease covering 80 acres in section 17-20-15, to the Leonard company, carried on agreement to drill when and if oil is discovered in paying quantities within 1 mile of the property.

Natchitoches Parish

Derrick is being constructed at C. D. Morrison No. 1 Moffett, in the SW cor. of section 19-10-10. This is a proposed 5,000-foot test on a 4,000-acre block. No nearby test has drilled below 3,000 feet.

Union Parish

Three routine gas well completions were recorded on the northwest edge of the Monroe gas field last week. One well gauged 11,000,000 feet, another 6,000,000 feet and another 1,000,000 feet. Rock pressures ranged from 865 to 950 pounds.

Vernon Parish

Llano Del Rio Co. No. 2 Gulf Lumber Co., in the NE cor. of section 7-1n-9w, has been abandoned as a dry hole, after drilling to a depth of 3,240 feet in Anona Chalk.

Webster Parish

Ohio Oil Co. No. 1 Holloway, in section 23-21-10, continues to be closely watched as it drills ahead at 8,230 feet. This well attracted wide attention last week when it drilled 25 feet of saturated sand and made estimated gas flow of 25,000,000 feet in eight minutes on drill stem test. This is now the deepest well ever drilled in Northern Louisiana or Southern Arkansas, and operators plan to carry it to 10,000 feet if commercial production is not encountered above this depth.

J. P. Evans and others continue to test their gas-distillate well, known as No. 1 Crichton, 3 miles southeast of Sibley. They are now experimenting to determine the amount of distillate that can be produced when flowing through different size chokes. With a one-eighth inch choke the well produced 9½ bbls. per hour, and with a three-eighths inch choke the well produced 6½ bbls. per hour.

Another important test is to be made in search for deep production in Webster Parish. This well is to be situated about 5 miles southwest of the Evans-Crichton gas-distillate well, in section 29-17-9. It will be known as the L. R. Skidmore No. 1

Barnett. Tools have been moved in and contractors are now rigging up.

ARKANSAS

Bradley County

Phillips Petroleum Co. No. 1 C. H. Murphy, in the NW cor. of section 12-17-11, is rigging up for their important deep test of this area. Location for this well was staked on the peak of a recently seismographed structure. Leases and royalty have been changing hands at rising prices surrounding this well recently.

Miller County

The sending of a seismograph crew into central Miller County within the last week by the Standard Oil Co. of Louisiana served to create excitement in this vicinity, and make the trading of leases and royalty quite active. It is understood that the Standard company is taking everything open around section 22-17-27, near the town of Fouke. J. D. Wadley, Gulf, C. N. House, and others have taken extensive holdings here. Leases were selling for around $3 per acre until the middle of the week, when some brokers advanced to as high as $5.

The Sinclair Prairie company is reported to have taken a geophysical option on the J. K. Wadley block east of Fouke.

Any test of the Trinity drilled in this section will be necessarily deep. The base of the Anhydrite at Rodessa occurs at approximately —5,500 feet subsea. This section takes a rather steep dip northward until approximately Township 19, where it begins its rise toward the outcrop. For this reason, lower Trinity members may be expected at about the same depth as at Rodessa.

Bowie County, Texas

Fay T. Chew and others have set surface pipe at their No. 1 Barkman, located in the John Parkman Survey, about 3 miles north of Leary, Tex., and 10 miles west of Texarkana, Tex. This well is situated upon a 6,000-acre block, and is being drilled for a test of the lower Trinity or upper Paleozoic members at an approximate depth of 5,000 feet.

Harrison County, Texas

W. F. Bridwell and others completed their test, Platt No. 1, in the F. C. Baker survey of Harrison County, Tex., for an initial flow of 60

(Continued on Page 90)

Completions and Operations in New York-Pennsylvania Gas Field

By R. C. CONINE

COUDERSPORT, Pa., June 13.—There were two completions in the Oriskany gas sand fields of New York and Pennsylvania, one in each state. On the D. Rapan farm, Genessee Township, Potter County, the New York State Natural Gas Co. completed a gasser which gauged 21,500,000 feet a day, and initial rock pressure of 1,245 pounds. Top of the pay sand was found at 5,217 feet and the well was completed at a total depth of 5,229 feet. In New York state, Belmont Quadrangle Development Co. found potential production of 3,500,000 feet a day in the White Medina, reached 3,570 feet on the J. A. Brown farm, Leon Township, Cattaraugus County. The well was completed at a total depth of 3,585 feet.

New York Operations

Actual drilling was at a low ebb in the New York fields during the week ending June 12. Godfrey L. Cabot was drilling at 503 feet on the Leo Harder farm, Alma Township, Allegany County. Schrack and others was moving in on the D. J. Crane farm, same township. Natural Gas Producers was shut down at 560 feet on the Eddy farm, Rome Township, Oneida County. Farriman and others was shut down at 3,000 feet on the Cash Willis farm, Howard Township, Steuben County. Carpenter and others had a crooked hole at 3,040 feet on the C. Matteon farm, Avoca Township, same county. Top of the lime in this test was found at 3,030 feet. Ross and others was shut down at 436 feet on the G. Wright farm, Portland Township, Chautauqua County. Southwestern Development Co. was drilling at 1,515 feet on the E. G. Smith farm, Hanover Township, same county.

Pennsylvania Operations

G. L. Cabot was drilling at 700 feet on the Theodore Cobb farm, Genesee Township, Potter County. Casing, 8¼-inch, was set at 673 feet. Sylvania Corp. was drilling at 4,335 feet on the George McCutcheon farm, Harrison Township, same county, after reaching the Tully at 4,303 feet. New York State was drilling at 4,520 feet on the F. Whitney farm, Bingham Township, same county, after reaching the Tully at 4,454 feet. Sylvania continued idle at its location on the J. Steadman farm, Genesee Township, same county. G. L. Cabot was spudding at 45 feet on the Guy Thompson farm, same township. Potter Development Co. was drilling at 668 feet on the Crawford estate property, Keating Township, same county.

The Warren County Oriskany sand test, Kinzua Township, on the Lesser & Louner farm, by H. C. Drilling Co., was drilling at 1,810 feet. In the same county, Pittsfield Township, Potter Development Co. is building a rig on the D. Spetz farm. Cowanesque Gas Co. cemented casing at 4,149 feet on the George Stebbins farm, Clymer Township, Tioga County. Top of the lime was found at 4,140 feet. New York state was drilling at 2,805 feet on the Otto Burnside farm, same township. G. L. Cabot was drilling at 2,434 feet on the J. L. Lattimer farm, same township. Shoop and others was building a rig on the H. Gee farm, same township. Beal McCandelless was building a rig on the Costello and Thompson property, Genesee Township, Potter County.

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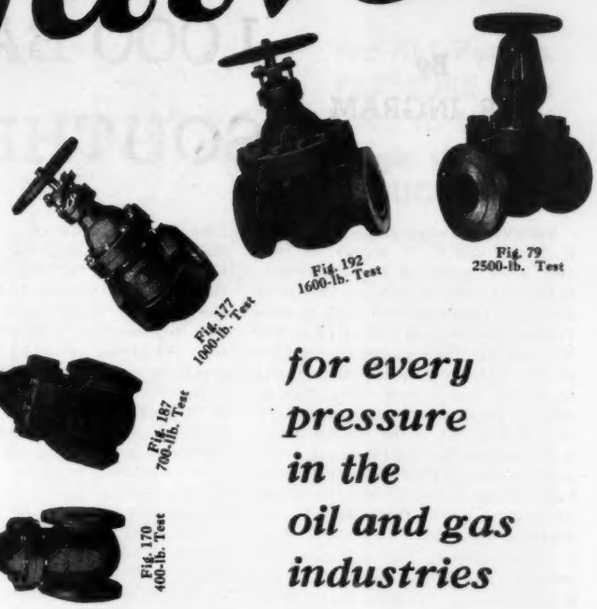

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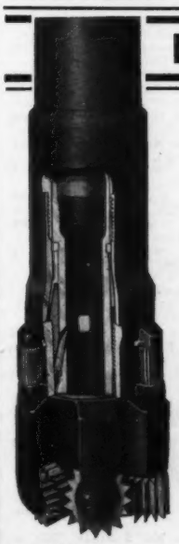

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Rocky Mountain Area

By T. R. INGRAM

1,000 BARREL COMPLETION IN SOUTHERN COLORADO FIELD

DENVER, Colo., June 15.—Frank C. Myers and E. M. Butler, of Denver, have acquired the 20,000-acre block and drilling well on the Derby dome in Colorado and will resume drilling on the deep test at once. The William E. Hughes estate completed its No. 7 Gramps in Archuleta County, at an undisclosed depth, for an official estimate of more than 1,000 bbls. a day. When the Indian Territory Illuminating Oil Co. began withholding information on its eastern Colorado test, the usual crop of rumors which spring from lack of news began to blossom.

The California Co. completed an offset to its discovery well on the Quealy dome in Albany County, Wyoming, for an average of 18 bbls. naturally per hour from the Dakota sand. Acidization increased the Ohio Oil Co. No. 4 Byron Union, in Big Horn County from 12 to 192 bbls. The Sinclair-Wyoming Oil Co. will drill a Tensleep test on the Wertz dome in Carbon County. The Powerine Co., fifth largest retail distributor in Colorado, is going after production in Lance Creek through a developing unit with a view to constructing a refinery at Denver.

Crude prices were slashed 10 cents a barrel in the Kevin-Sunburst and 15 cents a barrel in the Cut Bank fields in Montana. Five wells, one of which was a dry hole, were completed in the Cut Bank field. Kevin-Sunburst had four completions, including one dry hole, and Ponder reported a small well.

NEW MEXICO

The largest producer among four completions in the Eunice field of Lea County, New Mexico, was the Continental Oil Co. No. 9-B-4 Meyer, C NE NW section 4-21-36. It had a natural flow of 2,400 bbls. of oil through three-quarters inch tubing choke in the first 24 hours. Pay was found at 3,766 to 3,870 feet, total depth. Same operator's No. 10-B-4 Meyer, C NE NE section 4-21-36, flowed 480 bbls. naturally through three-quarters inch tubing choke and was completed at 3,860 feet, total depth. Oil pay was topped at 3,832 feet. The company's No. 1-B-14 Lockhart, C SW NW section 14-21-36, was completed at 3,870 feet, total depth, in pay topped at 3,810 feet. It flowed 1,080 bbls. naturally through three-quarters inch tubing choke in 24 hours. Gulf Oil Corp. No. 6 Arnott-Ramsey "C," C NE NW section 21-21-36, was acidized and flowed 123 bbls. through tubing in the first 24 hours. Pay was had at 3,793 to 3,911 feet, total depth.

In the Monument area, Gulf Oil Corp. completed No. 7 Culp, C NE NE section 19-19-37, at 4,005 feet, total depth. Top of pay was 3,895 feet. It flowed 1,656 bbls. naturally through tubing in 24 hours. Gas gauged 1,325,000 feet. Empire Oil & Refining Co. No. 2 State "E," SE SE SW section 30-19-37, flowed 1,188 bbls. in the first 24 hours after acidizing. Gas volume was 1,500,000 feet. It was completed at 3,933 feet, total depth, in pay topped at 3,830 feet.

Humble Oil & Refining Co. No. 1 G. B. Hadfield, C NE SE section 21-25-37, in the Jal sand area, flowed 480 bbls., naturally, in 24 hours and was completed at 3,201 feet, total depth. Top of pay was 3,112 feet. Gas gauged 912,000 feet.

One Eddy County well was completed. Dooley & Dixon No. 1 Commerce, C W half NW NW section 18-20-27, had shows of oil at 402, 690, 837, 845 and 850 feet, but was dry and abandoned at 958 feet, total depth.

In Chaves County, Tannehill No. 2 Campbell, C NE SE section 1-11-25, was dry and abandoned at 1,420 feet, total depth, where sulfur water intruded.

Monument Area

Gulf Oil Corp. No. 1 A. B. Reeves, C NW SW sec. 29-20-37. Wildcat; T.D. 3,859 ft.; P.B. 3,846 ft.; swbd. 8 bbls. fluid per hr.; 20% wtr.; C.O. 3,606 ft; swbg. and tstg.

Gulf Oil Corp. No. 3 Graham-State "C," C SW NE sec. 24-29-36. T.D. 4,030 ft.; flwd. 32 B.P.H. on gas lift; tstg.

Sun Oil Co. No. 6 Weir, C NW NE sec. 35-19-36. Drlg. 2,180 ft.

Texas Co. No. 4 State "E," C NE SW sec. 1-20-36. T.D. 3,810 ft.; set 5½-in. csg.

Continental Oil Co. No. 2-A-6 Britt, C NW SW sec. 6-20-37. T.D. 3,850 ft.; fsg.; tstd. 36,000,000 ft. of gas.

Fred Turner, Jr., No. 1 State "A," NE NW SW sec. 2-20-36. T.D. 3,898 ft.; tstg.

Texas Co. No. 3 Phillips, C SW NW sec. 6-20-37. T.D. 3,896 ft.; tbg. to test.

Anderson-Prichard Oil Corp. No. 3 Britt, SE SW NE sec. 7-20-37. T.D. 268 ft.; set 12½-in. csg.

Sun Oil Co. No. 1 State, C NE NE sec. 25-19-36. T.D. 3,988 ft.; tstg. after acidizing.

Anderson-Prichard Oil Corp. No. 1 State, C SW NW sec. 2-20-36. Drlg. 3,848 ft.

Continental Oil Co. No. 4 State "C," C SW NW sec. 30-19-37. Drlg. 2,515 ft.

Gulf Oil Corp No. 1 S. T. Burk, C NE NE sec. 28-19-37. Drlg. 3,993 ft.

Texas Co. No. 1 State "J," C NE SW sec. 24-19-36. T.D. 4,050 ft.; acidized 3 times; tstg.

Amerada Pet. Corp. No. 4 State "O," C NE NE sec. 30-19-37. Drlg. 3,910 ft.

Amerada Pet. Corp. No. 1 State "T," C SE SW sec. 25-19-36. Drlg. 2,625 ft.

Shell Pet. Corp. No. 1 J. A. Foster, C SE SE sec. 34-19-36. T.D. 3,957 ft.; acidized.

Amerada Pet. Corp. No. 3 Phillips, C SW NE sec. 1-20-36. Drlg 3,028 ft.

Amerada Pet. Corp. No. 3 State "D," C SE NW sec. 1-20-36. Drlg. 3,070 ft.

Gulf Oil Corp. No. 4 Graham-State "C," C SW SE sec. 24-19-36. T.D. 4,017 ft.; acidized; flwd. 55 bbls. in 4 hrs.; waiting on acid.

Gulf Oil Corp. No. 1 J. W. Smith, C SE NE sec. 24-19-33. T.D. 3,970 ft.; est. 30 B.P.H.; tstg.

Barnsdall Oil Co. No. 5 Cooper, C NE SE sec. 12-20-36. Drlg. 3,860 ft.

Gulf Oil Corp. No. 1 D. A. Williams, C NW SE sec. 29-19-37. T.D. 3,985 ft.; swbg.

Ohio Oil Co. No. 3 State-Elliott, SW SW SE sec. 30-19-37. Drlg. 3,614 ft.

Anderson-Prichard Oil Corp. No. 2 Britt "A," C NE SW sec. 6-20-37. Loc.

Skelly Oil Co. No. 1 State "E," C SE NE sec. 29-19-37. T.D. 1,325 ft.; set 9⅝-in. csg.

Empire O. & R. Co. No. 2 State "E," C NW SW sec. 30-19-37. T.D. 3,850 ft.; set 7-in. csg.

Continental Oil Co. No. 2-A-3 Reed, C SE NE sec. 3-20-36. Drlg. 3,410 ft.

Texas Co. No. 1 State "K," C SE SE sec. 18-19-37. Drlg. 3,175 ft.

Amerada Pet. Corp. No. 2 State "K," C NE NW sec. 29-19-37. T.D. 2,517 ft.; set 8⅝-in. csg.

Amerada Pet. Corp. No. 1 Sarah Phillips, SE SE SW sec. 33-19-37. T.D. 2,567 ft.; set 8⅝-in. csg.

Gulf Oil Corp. No. 2 Mathews, C NW SE sec. 6-20-37. Drlg. 2,730 ft.; gas est. 1,000,000 ft.

Oilwell Drlg. Co. No. 2 State "A," C NW NE sec. 29-19-37. Drlg. 3,186 ft.

Ohio Oil Co. No. 4 State-Elliott, C SE SE sec. 30-19-37. Drlg. 3,938 ft.

Anderson-Prichard Oil Corp. No. 4 Britt, C NW NE sec. 7-20-37. Drlg. 1,945 ft.

Amerada Pet. Corp. No. 5 Weir, C SW NW sec. 35-19-36. T.D. 2,492 ft.; set 8⅝-in. csg.

Amerada Pet. Corp. No. 2 Lambert, C SW NE sec. 6-20-37. Drlg. 2,205 ft.

Gulf Oil Corp. No. 1 Hetter, C SW SE sec. 20-19-37. Rig.

Tide Water Oil Co. No. 2 State "F," C NE NW sec. 20-19-37. T.D. 252 ft.; R. U.R.

Amerada Pet. Corp. No. 2 State "P," C SW SW sec. 29-19-37. Drlg. 1,245 ft.

Empire O. & R. Co. No. 4 State "E," SW cor. sec. 30-19-37. Rig.

Gulf Oil Corp. No. 1 Culp "B," NW NW SE sec. 31-19-37. Rig.

Gulf Oil Corp. No. 1 Phillips, NW NW NE sec. 31-19-37. Rig.

Tide Water Oil Co. No. 1 State "H," C NW SW sec. 32-19-37. Drlg. 940 ft.

Shell Pet. Corp. No. 1 Cooper, NW NW NE sec. 4-20-37. Drlg. 1,087 ft.

Texas Co. No. 3 State-Aggies, NE cor. sec. 20-20-37. Rig.

Gulf Oil Corp. No. 5 Graham-State "C," C NW NE sec. 25-19-36. Rig.

Amerada Pet. Corp. No. 2 State "S," C SW SW sec. 2-20-36. Rig.

Continental Oil Co. No. 1-A-17 State, C SW SW sec. 17-19-37. Rig.

Shell Pet. Corp. No. 1 State "F," C NE SE sec. 29-19-37. Rig.

Amerada Pet. Corp. No. 1 Phillips "A," SW SW NE sec. 31-19-37. Rig.

Amerada Pet. Corp. No. 1 State "U," C SW NW sec. 32-19-37. Cellar.

Amerada Pet. Corp. No. 1 Gaither, C NE SE sec. 34-19-36. Rig.

Lea County—Miscellaneous

Texas Co. and Repollo Oil Co. No. 1 Lanehart, C NE sec. 29-25-37. T.D. 3,165 ft.; prep. to test through tbg.

Maljamar O. & G. Co. No. 6 Baisch, C NW SE sec. 21-17-32. T.D. 4,129 ft.; P.B. 3,950 ft.; flwd. 150 B.P.D. for 2 days after third acid treatment; then 80 B.P.D.; tstg.

Ohio Oil Co. No. 1 W. H. Turner, C NE SE sec. 29-31-37. T.D. 3,800 ft.; swbg. and tstg.

Landreth Prod. Co. No. 1 J. W. Grizzell, C SE SW sec. 5-22-37. Drlg. 3,105 ft.

Rowan et al No. 1 Mattern, C SW SE sec. 7-22-37. T.D. 3,415 ft.; drlg. plug.

C. & G. Oil Co. No. 1 E. Weir, C NE NE sec. 14-20-37. Wildcat; T.D. 3,893 ft.; tstg.; 10 B.P.D.; 1,200,000 ft. gas; R.U. S.T. to deepen.

Gulf Oil Corp. No. 1 E. King, C SW NW sec. 28-21-37. T.D. 3,804 ft.; swbg.

Gulf Oil Corp. No. 1 W. T. McCommack, C NE NE sec. 32-21-37. T.D. 3,802 ft.; to acidize.

Continental Oil Co. No. 1 J. C. Farney, C SW SE sec. 5-23-36. Wildcat; loc.

Gulf Oil Corp. No. 1 S. J. Carr, C NW SW sec. 3-24-37. Drlg. 1,280 ft.

Gulf Oil Corp. No. 2 N. F. Humphreys, C NE NW sec. 25-25-36. T.D. 3,185 ft.; standardizing.

Sun Oil Co. No. 1 Stuart, C NW NE sec. 15-25-37. T.D. 3,390 ft.; flwd. 32 bbls. in 24 hrs. by heads; to C.O.

Continental Oil Co. No. 2-A-19 Eaves, C SW SW sec. 19-26-37. Drlg. 2,727 ft.

Gulf Oil Corp. No. 1 J. A. Stuart, C SW NE sec. 10-25-37. T.D. 3,265 ft.; set 7-in. csg.

Gulf Oil Corp. No. 1 L. M. Buffington, C NW SW sec. 13-25-37. Drlg. 2,020 ft.

Sun Oil Co. No. 1 Lanehart, C SE SE sec. 20-25-37. Drlg. 2,650 ft.

Humble O. & R. Co. No. 1 Lanehart, C NE SW sec. 21-25-37. T.D. 3,425 ft.; tstg.

Magnolia Pet. Co. No. 1 E. O. Carson, C NW SW sec. 28-21-37. Drlg. 2,200 ft.

Skelly Oil Co. No. 1 Stuart, C NE NW sec. 15-25-37. Drlg. 760 ft.

Texas Co. No. 1 Eula Alexander, C NW SW sec. 7-21-37. T.D. 3,605 ft.; S.D. for repairs.
SW sec. 1-25-36. T.D. 1,335 ft.; set 10-in. csg.

Byrd-Frost, Inc., No. 1-A-1 Wells, C NW Williams & Cockburn No. 3 Miller, C SW SW sec. 28-17-32. Drlg. 445 ft.

Texas Co. No. 1 E. Fanning, C SE NE sec. 4-24-37. R.U.

Jal Natural Gas Co. No. 1 Bates, C NW SW sec. 20-25-37. Cellar and pits.

Harry Leonard No. 3 Lanehart, C SE NW sec. 21-25-37. Drlg. 95 ft.

Culbertson & Irwin No. 1 Eaves, C SW NW sec. 18-21-33. M.I.M.

Cooper Area

Plains Prod. Co. No. 1 R. L. Mosley, C NW SE sec. 24-24-37. T.D. 3,551 ft.; flwd. 12 bbls. in 24 hrs.; 1,000,000 ft. gas; tbg.

Southern Oil Corp. No. 1 Vaughan, C SW SE sec. 15-24-36. Drlg. 3,378 ft.

Southern Oil Corp. No. 1 Gates, C SW NW sec. 23-24-36. T.D. 3,497 ft.; tstg.

Skelly Oil Co. No. 5 Coates, C NE SE sec. 3-24-36. T.D. 2,921 ft.; set 9⅝-in. csg.

Eunice Area

Gulf Oil Corp. No. 8 Bell-Ramsey-State; C NW NW sec. 4-21-36. T.D. 3,870 ft.; flowed 25 bbls. daily after acidizing; resetting packer.

Empire G. & F. Co. No. 1 State "D," C SE NE sec. 32-21-36, five-eighths mile N part of No. 157 lease. T.D. 3,941 ft.; acidized; waiting.

Gulf Oil Corp. No. 2 Janda "B," C NE SE sec. 32-21-36. T.D. 3,880 ft. in lime; swabbed dry; to acidize.

General Crude Oil Co. No. 2 State "E," C NE SW sec. 32-21-36. Drlg. 3,909 ft.

Devonian Oil Co. No. 4 State-Heasley, C SW SW sec. 5-21-36. T.D. 3,875 ft.; acidized; flowed 1¾ bbls. per hour; reacidized; flowed 1½ bbls. per hour; 8,000,000 ft. gas; to set packer.

Shell Pet. Corp. No. 1 State "J," C SE SW sec. 32-20-37. T.D. 3,845 ft., acidized; flowed 32 bbls. in 7 hours; gas, 8,000,000 ft.; to set packer.

Gulf Oil Corp. No. 9 Bell-Ramsey, C SW SW sec. 4-21-36. T.D. 3,611 ft.; fsg.

Gulf Oil Corp. No. 4 Orcutt, C SE NE sec. 6-21-36. T.D. 3,475 ft.; set 5½-in. casing.

Gulf Oil Corp. No. 7 Arnott-Ramsey "C," C NW NE sec. 21-21-36. Drlg. 3,735 ft.

Continental Oil Co. No. 6-A-18 Meyer, C NW NE sec. 18-21-36. Drlg. 3,330 ft.

Continental Oil Co. No. 11-B-4 Meyer, C SE SE sec. 4-21-36. Cellar and pits.

Samedan Oil Co. No. 1 Marshall, C SW NW sec. 12-21-36. Drlg. 3,715 ft.

Continental Oil Co. No. 5-A-18 Lockhart, SE SE SW sec. 18-21-36. Drlg. 2,661 ft.

Continental Oil Co. No. 2-B-18 Meyer, C NE NW sec. 18-21-36. T.D. 3,934 ft.; packer set at 3,864 ft., testing.

Tide Water Oil Co. No. 1 State "G," C SE NE sec. 21-21-36. T.D. 3,843 ft. Set 7-in. csg.

Landreth Prod. Co. and Ohio Fuel Supply Co. No. 1 State "E," C SW NW sec. 22-21-36. T.D. 3,900 ft.; flowed 165 bbls. in one hour. Gas estimated 1,000,000 ft.

Texas Co. No. 2 State Aggies, C SW SE sec. 31-20-37. Drlg. 3,190 ft.

Humble Oil & Ref. Co. No. 1 State Aggies, C SE SW sec. 31-20-37. Total depth 3,713 ft., fishing.

Continental Oil Co. No. 12-B-4 Meyer, C SE SW sec. 4-21-36. Drlg. 3,275 ft.

Devonian Oil Co. No. 5 State-Heasley, C NW SW sec. 5-21-36. Cellar and pits.

Devonian Oil Co. No. 6 State-Heasley, C NE SW sec. 5-21-36. Loc.

Humble Oil & Ref. Co. No. 2 Knox, C SW SE sec. 10-21-36. Drlg. 386 ft.

Gulf Oil Corp. No. 2 Collins, C NE NW sec. 14-21-36. Rig.

Humble Oil & Ref. Co. No. 2 State-Aggies, C SW SW sec. 31-20-37. Cellar.

Gulf Oil Corp. No. 10 Bell-Ramsey-State, C NW SW sec. 4-21-36. Rig.

Atlantic Oil Prod. Co. No. 2 State "K," C NE SW sec. 6-21-36. Drlg. 900 ft.

Gulf Oil Corp. No. 3 Houston, C SW SE sec. 7-21-36. Rig.

Gulf Oil Corp. No. 1 H. L. Houston, C SE SW sec. 7-21-36. Rig.

Humble Oil & Ref. Co. No. 6 Adkins, C NW NW sec. 10-21-36. Rig.

Atlantic Oil Prod. Co. No. 1 State "L," C SW NW sec. 11-21-36. Rigging up rotary.

Mid-Continent Pet. Corp. No. 1 Marshall, SW SE SE sec. 11-21-36. Rig.

Gulf Oil Corp. No. 3 Collins, C SW NE sec. 14-21-36. Rig.

Gulf Oil Co. No. 3 Bell-State "C," C NE NW sec. 15-21-36. Rig.

Gulf Oil Corp. No. 2 Janda "C," C SW SW sec. 15-21-36. T.D. 181 ft.; drill pipe stuck.

Gulf Oil Corp. No. 8 Arnott-Ramsey "C," C SW SE sec. 21-21-36. Rig.

Skelly Oil Co. and Humble Oil & Refining Co. No. 1 Adkins, C NE NW sec. 10-21-36. Rig.

Continental Oil Co No. 2-B-14 Lockhart, C NW NW sec. 14-21-36. Rig.
Continental Oil Co. No. 1-D-15 State, C SE NE sec. 15-21-36. Rigging up rotary.

Hobbs Area

Shell Pet. Corp. No. 1 State "E," C E half SE SE sec. 14-18-37. T.D. 4,374 ft.; P.B. 4,178 ft.; shut down and may abandon.
National Securities Oil Corp. No. 1 Linam, NE SE SW sec. 33-18-37; wildcat. Old well plugging back from 4,238 to 4,228 ft.; swabbed sulfur water; no oil; shut down for orders.
Shell Petroleum Corp. No. 4 Sanger, SW SW NW sec. 27-18-39. T.D. 4,221 ft.; waiting on proration gauge.

Sims Area

Samedan Oil Co. No. 1 Parks, 330 ft. from S and 400 ft. from W lines, SW¼ sec. 14-22-37. T.D. 3,708 ft.; 7-inch casing collapsed; waiting on Halliburton.
Continental Oil Co. No. 1-A-22 Elliott, C SW SW sec. 22-22-27. T.D. 3,539 ft.; fishing; flows 40 to 50 bbls. daily while fishing.
Skelly Oil Co. No. 1 Ella Simms, C NW SE sec. 3-23-27. Drlg. 2,260 ft.
Penrose & Rowman No. 2 Cary, C NE SW sec. 22-23-37. Flowing 70 to 110 bbls. daily; 7-inch csg. collapsed; W.O.C.
Sun Oil Co. No. 1 Richards, C NE SE sec. 6-23-37. T.D. 3,798 ft.; pumped 5 bbls. oil, 32 bbls. water, in 16 hrs.; testing on pump.
Humble Oil & Ref. Co. No. 1 W. B. Farrell, C SW SE sec. 22-22-37. T.D. 3,385 ft.; drlg. plug.
Tide Water Oil Co. No. 1 A. Walden, C SE NE sec. 21-22-37. Drlg. 3,365 ft.
Magnolia Pet. Co. No. 1 Cary, C NE SE sec. 21-22-37. Drlg. 3,090 ft.
Penrose & Rowan No. 3 Cary, C SE NW sec. 22-22-37. Drlg. 1,305 ft.
Continental Oil Co. No. 1-A-15 Elliott, SE SE SE sec. 15-22-37. Location.
Continental Oil Co. No. 1-A-21 Elliott, C SE SE sec. 21-22-37. Location.
Skelly Oil Co. No. 2 J. V. Baker, C NW NW sec. 27-22-37. Drlg. 1,150 ft.
Gulf Oil Corp. No. 1 F. C. King, C SW NW sec. 5-23-37. Drlg. 1,075 ft.
Penrose & Rowan No. 4 Cary, C SW NW sec. 22-22-37. T.D. 1,146 ft.; set 8⅝-in. csg.

Harding County

Kahay No. 1 Dae Daca, C sec. 19-20n-31e. Total depth, 1,511 ft. Setting 5 3/16 in. csg.
Clyde B. Neill No. 1 Foster, C NW SW sec. 27-21-30. Drlg. 700 ft.

Eddy County

Etz Bros. No. 2 State, C NW SW NE sec. 16-17-30. Drlg. 3,000 ft.
Premier Pet. Corp. No. 2 Dexter "E," NW SW NE sec. 20-17-30. T.D. 3,275 ft.; waiting on proration gauge.
Dexter & Berry No. 1 Berry, NW NE NW sec. 21-17-30. Drlg. 3,170 ft. Estimated 35 bbls. per hour.
Tignor, Etz & Keys No. 4 Keys, "A," C SW SE sec. 10-17-28. T.D. 200 ft.; fsg.
Grayburg Oil Co. No. 7 Burch, C NW NE sec. 19-17-30. Moving in.
Red Lakes Oil Co. No. 7 State, NW NW SE sec. 22-17-28. Drlg. 615 ft.
Carper and others No. 1 Gissler "B," NW NE NW sec. 23-17-30. Location.
Hammond and others No. 1 State, SW SE SW sec. 15-17-28. Rigging up mach.

De Baca County

Mid-Continent Engineering Corp. No. 1 State, C NW SE sec. 27-4n-22e. T.D. 735 ft.; U.R. 10-in. csg.

Chaves County

Comanche Drlg. Co. No. 2 Sloop & Purcell, C NE NE sec. 15-11-26. Drlg. 1,060 ft.

NORTHWEST NEW MEXICO

Bernalillo County

Norine Realty Co., Inc., No. 2 Gallegas grant, SE NW NW sec. 19-11n-4e. Drlg. 1,680 ft.

Guadalupe County

Anton Chico Dev. Co. No. 2 fee, NW NE SW sec. 20-9n-17e. T.D. 804 ft.; fsg. tools.
Ralph Knight et al No. 1 Anton Chico, SW sec. 33-9n-16e. Spd. and S.D.

McKinley County

S. Dysart et al No. 1 Bouton, CEL NW NE sec. 14-14n-10w. T.D. 1,490 ft.; rmg. at 775 ft.
Seward et al No. 1 fee, SE SE NE sec. 19-20n-9w. Drlg. 270 ft.; (first report).

Rio Arriba County

Larrazolo & Turner No. 1 Gonzales, SE SW SE sec. 24-32n-1e. (Formerly carried in Colorado.)

San Juan County

Atchison & Galloway No. 1 Patd., C SE SE sec. 19-29n-11w. Drlg. 100 ft.
W. L. Hair No. 1 Hair, NE NW NE sec. 23-29n-11w. S.D. 900 ft.
Kutz Canon O. & G. Co. No. 1 Day, SW SW SW sec. 20-28-10w. T.D. 4,400 ft.; pulled 4½-in.; C.O. 3,900 ft.
Continental Oil Co. No. 54 Tribal, 1,980 ft. W of NE cor. sec. 2-29n-19w. Drlg. 290 ft.; 8¼-in. at 23 ft.; (first report).
Nick Spatter No. 1 fee, C NE SW sec. 32-21-11w. S.D. 1,780 ft.; T.A.
Southern Union Gas Co. No. 6 Government, C NW NW sec. 19-28-10w. Set 6⅝-in. at 1,909 ft.; drlg. in 1,585 ft. sh.

Torrance County

45 Pet. Co. No. 1 Greenfield, C NW SW sec. 17-9-8e. Drlg. 1,925 ft.; blue and gr. l.

COLORADO

Adams County

Frank C. Myers, a Denver attorney, has purchased from E. M. Butler a full one-half interest in the block of leases, drilling well and operations on the Derby dome 15 miles northeast of Denver. The block, comprising approximately 20,000 acres, and the entire operation will be taken over by a new corporation now being formed. Mr. Myers is attorney for the Powerine company, one of the largest independent marketers in the state, but that company has no connection with the deal. The test well, No. 1 Baxter, C SW SW section 2-3s-66, which has been standing at 700 feet, is preparing to resume within the next few days. The Derby structure was geologized by the late C. T. Lupton, who recommended it for drilling. Shortly before his death he reported that the log of a well drilled on the structure for water showed that it was running about 400 feet higher than the old Fitzsimmons well a few miles to the south. Subsequently the water well reached the top of the Pierre at 1,251 feet, missing the Foxhills, and putting the structural elevation close to 600 feet higher than at the Fitzsimmons test.

Glenridge Oil Corp. No. 1 Hills, SE SE SE sec. 27-3s-64. T.D. 4,252 ft.; drlg. cmt. at 4,242 ft.
Riddle Pet. Co. No. 1 Baxter, C SW sec. 2-3s-6w. Prep. to resume at 700 ft. under new ownership.

Archuleta County

The William E. Hughes estate No. 7 Gramps, approximately NW SE SE section 24-33n-2e, Price district, on unsurveyed land, was completed at an undisclosed depth in the Dakota sand. The production was estimated at more than 1,000 bbls. a day, based on a short swabbing test. It is north of Nos. 2 and 3 Gramps, which were estimated at 500 bbls. each and less than one-third of a mile south of No. 6 Gramps. The last named swabbed at the rate of 1,448 bbls. a day on a four-hour test. Nos. 8 and 9 Gramps will be drilled to the north of No. 6

Carl D. Linstrom No. 1 Crowley, SE SE SE sec. 3-22n-2e. M.I.M.
Oil City Pet. Co. No. 1-A Garnett, NW NE NW sec. 25-33n-2e. S.D. 1,515 ft.; top Dakota series 1,415 ft.
Oil City Pet. Co. and Archuleta O. & G. Co. No. 1 Reeder, Lot 5 (SW SE SW), sec. 24-33n-2e. T.D. 575 ft.; U.R. 8¼-in. to bottom.
H. L. Kendrick No. 1 Crowley (unsurveyed), sec. 2-32-1. S.D. 1,125 ft. for 6¼-in.

Baca County

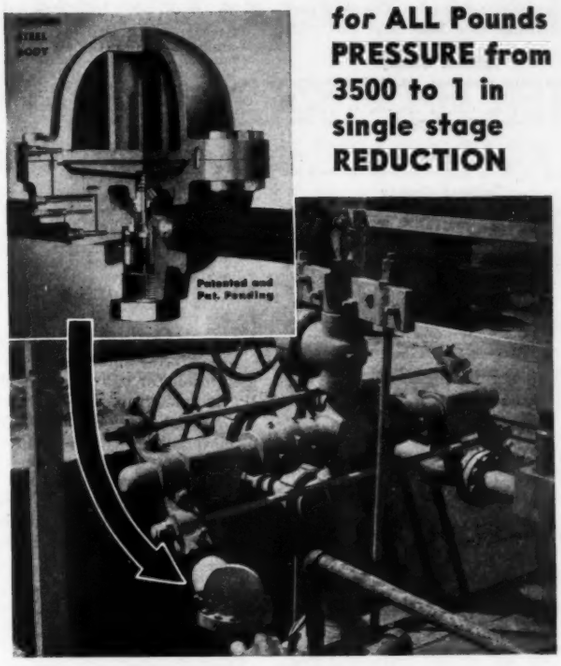
Paul R. Robb Pet. Corp. No. 1 Lovett, NW NW NW sec. 24-32s-48w. Drlg. below 305 ft.

Boulder County

The Boulder Producing & Development Co. has been incorporated for 50,000 shares of $1 par value by J. A. Warren, secretary and treasurer of the Kinney-Coastal Oil Co., of Denver; Leslie R. Steele, an independent producer in the Boulder field, and J. L. Hartsfield, to take over the producing well and acreage of Steele and others, to the west of Boulder, and develop the new pool. The discovery well, No. 1 Maxwell, SW NE NW section 24-1n-71, was completed last year as a pumper in the Muddy sand at 1,160 feet. The new company is preparing to drill another test to the Muddy. It is known as the Warren pool.

Huerfano County

Collins & Quinn No. 1 fee, C W half E half section 4-28-68, Badito-



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Alamo district, has suspended operations at 3,905 feet. This well originally was drilled by the Parker Club and others to 4,115 feet, where it had a show of oil, but was unable to test due to lost tools and other iron in the hole. Collins & Quinn took over the operation last year and attempted to complete the test by plugging back and drilling new hole past the tools.

Jackson County

Colorado Oil Ref. Co. No. 1 North Park Coal Co., NW NW sec. 18-9n-78w. T.D. 2,275 ft. (cor.); U.R. 13⅛-in. at 2,200 ft.

Jefferson County

Ruby Hill O. & G. Co. No. 1 Braden, SE SE SE sec. 24-4s-69w. T.D. 4,450 ft.; pulled liner to U.R. 5 3/16-in. to bottom.

Larimer County

Continental Oil Co. No. 8 Buckeye-U. P., C NE SW sec. 31-10n-68. R.U.

LaPlata County

McGarr Pet. Co. No. 1 Pinton Mesa, CSL NE NE sec. 34-35n-12w. Drlg. 3,200 ft.

Las Animas County

Mountain States Oil Corp. No. 1 Nikola, C NE SE sec. 10-34n-62w. S.D. 1,813 ft.

Lincoln County

Consolidated Smelting & Metals Co. No. 1 Hancock, NE NE SW sec. 7-17s-62. S.D. 2,050 ft. for repairs.

Moffat County

Craig-Moore No. 1 Camp estate, NW NW NE section 13-4n-92, northeast side of the Iles dome, spudded to 40 feet, where it set the 12½-inch and then shut down. It validated lease until plans are completed for a deep test to the Sundance.

Mountain Fuel Supply Co. No. 1 Allen, NE SW SE sec. 32-12n-97w. M.I.M. and drlg. wtr. well.
Mountain Fuel Supply Co. No. 1 Kuykendall, NE NE SE sec. 22-12n-100. Rng. 4¾-in. at 2,412 ft.
Texas Co. No. 3 Iles Inv. Co., 200 ft. E of W line, and 165 ft. S of N line, Lot 4, sec. 23-4s-92. Drlg. 1,400 ft.

Morgan County

Swisher et al No. 1 Lunt, 92 ft. W of E line and 360 ft. N of S line, sec. 3-4n-60. T.D. 1,449 ft.; R.U.R.

Montezuma County

McElmo Oil Co. No. 1 West, NE NW NE sec. 21-26n-17w. Contracted with Perry Coon to comp.; T.D. 3,705 ft.; drove tools to bottom; fsg.

Park County

South Park Oil Co. No. 1 LeBert, NE NE NW sec. 21-11s-75w. Spdg. below 60 ft.
South Park Oil Co. No. 1 State, SE NE SW sec. 16-11s-75w. T.D. 4,440 ft.; U.R. 6¼-in. at 4,350 ft.; swbg. 50 bbls. per day.

Routt County

Mid-Colo. Pet. Co. No. 1 Omoholt, NE SE SE sec. 29-4n-87w. S.D. 2,910 ft.; renewing leases before drlg. into Sundance.

Washington County

Indian Territory Ill. Oil Co. and Carter Oil Co. No. 1 Vorce, C NE NE sec. 25-1s-49w. R.U.

Weld County

Continental Oil Co. No. 1 State Bank of Trenton, C SW NE sec. 21-3n-59w. Drlg. 5,616 ft. in sh.; trying to straighten hole.

Indian Territory Ill. Oil Co. No. 1 Strangways, C NW SW sec. 21-2s-43w. Operator not reporting depth.

WYOMING

Albany County

The California Co. has another completion on the Quealy dome in its No. 1 Wilson, NW SW SW section 18-17-76, an east offset to the discovery well. It topped the Dakota at 3,364 feet and was completed at 3,398 feet. It flowed an average of 18 bbls. an hour.

Geo. D. Parkinson et al No. 1 George & Hunt, NW NE SE sec. 5-17-75w. S.D. 435 ft. for mat.

Big Horn County

Ohio Oil Co. No. 4 Byron Union, SW SW NE section 22-56-97, Byron dome, which was completed at 5,696 feet after plugging back from 5,735 feet for 12 bbls. a day on the pump, was treated with 2,000 gallons of acid and responded by swabbing 192 bbls. the first 24 hours. The well is the first acidized exclusively in the Embar on the structure. The Taylor Oil Co. No. 1 Hoskins was acidized, but treatment included the upper part of the Tensleep.

J. W. Bales No. 1 Parker, C SW SW sec. 23-4-89. S.D. 690 ft. for pipe.
Joan Oil Co. No. 1 Howell, Lot 63 (NW SE NE) sec. 32-55n-97w. Resuming at 1,190 ft.
Montana-Wyoming Oil Co. No. 1-X Allen, Lot 52, sec. 18-56n-97w. Drlg. 1,505 ft.; 10-in. at 1,492 ft. (Relief well for No. 1 Allen).
Ohio Oil Co. No. 1 State, NE cor. Lot 38, sec. 36-56n-97. R.U.
Ohio Oil Co. No. 1 Orson Vail, SW NW NE sec. 23-56n-97w. Drlg. 1,615 ft. in sh.
Ohio Oil Co. No. 1 Robert Till, C SE SW sec. 24-56n-87w. Drlg. 4,674 ft. in red beds.
Peay Oil Co. No. 1 Denio, Tr. 43-C, sec. 15-55n-87w. T.D. 3,890 ft.; trying to cmt. off wtr. through hole in pipe.
Stock Oil Co. No. 1 Yates, CSL SW NE sec. 33-56n-97w. T.D. 2,522 ft.; 8⅝-in. at 2,513 ft. with 400 sacks.
Taylor Oil Co. No. 1 Robinson, SW SW NW sec. 24-56n-97w. Rigged and ready to spud.

Carbon County

Sinclair-Wyoming Oil Co. has made a location for a Tensleep test on the Wertz dome in its No. 10 Government, SW SE NW section 7-26-89. The dome produces gas in the Dakota series, but has not been tested in the Sundance and lower horizons. On the nearby Mahoney dome several wells have developed gas in the Sundance, but none went to the Embar and Tensleep.

Ohio Oil Co. No. 1 Baker, NW NW SW sec. 2-23n-79. T.D. 1,498 ft.; C.O.
General Pet. Corp. No. 1 Union Pacific, SW NW sec. 5-19n-83w. Drlg. 2,189 ft.
Ohio Oil Co. and California Co. No. 2 Union Pacific, C NE NE sec. 35-21n-79w. Drlg. 5,065 ft. in sh.
Ohio Oil Co. No. 4 Dixon, SE SE SE sec. 34-20n-78. Drlg. 3,560 ft.
Ohio Oil Co. No. 7 Diamond Cattle, SW SW NW sec. 35-20n-78w. Drlg. 145 ft.; 12½-in. cmtd. 130 ft.
Ohio Oil Co. and California Co. No. 3 Union Pacific, C NE SE sec. 23-21n-79w. Drlg. 4,535 ft. sh.
Ohio Oil Co. No. 3 Dixon, SE NE SE sec. 34-20n-78w. R.U. to deepen old well from 3,094 ft. to Sundance.
Sinclair-Wyoming Oil Co. No. 10 Govt., SW SE NW sec. 7-26n-89w. Loc. (first report).
Union Oil Co. of California and Mutual Oil Synd. No. 1 Union Pacific, 1,890 ft. from E line and 1,320 ft. from S line, sec. 1-18-78w. Drlg. 4,706 ft.

Converse County

Chadron-Osage Oil Co. No. 1 State, SW SW sec. 16-32n-69w. Drlg. 2,200 (cor.) ft.; carrying 10-in.
J. A. Olson No. 1 Reese, C NE SE sec. 10-32n-65w. M.I.M.

Fremont County

The only bid submitted for a prospecting permit from the Department of the Interior on Indian land to the west, southwest and south of the Maverick Springs fields in the Shoshone reservation was made by the British-American Oil Producing Co., of Tulsa. The block comprises 19,040 acres. The company is given a year to make a seismograph survey to determine whether there is a closed structure. It then has an option on half of the block in alternate tracts of 160 acres upon which it must drill a well or expend a specified amount in further geophysical work. The remaining half of the block may be offered at competitive bidding. The dome is on what is known as the Ewalt anticline, approximately 10 miles in length and 3 miles wide in width. E. W. Krampert, of Casper, district geologist for the Superior Oil Co., interested the British-American people before becoming associated with his present employer. If the expected test is drilled following the survey it will be for light oil in horizons down to and through the Sundance at 3,000 feet.

Tropic Oil Co. No. 1 Government, C SE SW sec. 34-27n-90w. T.D. 2,550 ft.; rng. 4¾-in.
Sinclair-Wyoming Oil Co. 2-C Muskrat, NE SW SW sec. 1-33n-92w. Drlg. 3,483 ft.

Hot Springs County

California Exploration Co. No. 2 Government, NW SW NW sec. 4-44-96. T.D. 4,245 ft.; P.B. to 4,165 ft.; shot 80 qts.; cwdg. cg.
Ohio Oil Co. No. 73 Mill Iron Cattle Co., NE SW SE sec. 19-4n-98w. T.D. 3,481 ft.; cmtd. cave 50 sacks.
Stanolind O. & G. Co. No. 20 State-Ridgely, SE NE SE sec. 19-46n-98w. T.D. 3,990 ft.; R.U. pump to test; top Embar 3,908 ft.

Lincoln County

Senrab Oil Corp. No. 3 Government, CSL SE NW sec. 10-26n-113w. S.D. 1,020 ft.
Texas Co. No. 2-D Government, NW sec. 10-26-113. Loc. (first report).

Niobrara County

Argo Oil Co. No. 7 Elliott, C NE NW sec. 5-35n-65w. T.D. 4,009 ft.; red beds; swbg. and tstg.; est at 200 bbls.
Continental Oil Co. No. 1-B Schuricht, C NW SE sec. 6-35n-65w. Cmtd. 13⅜-in. at 262 ft.; 175 ft. sacks.
Continental Oil Co. No. 4 Joss, 90 ft. W of C SW NE sec. 6-35n-65w. T.D. 3,919 ft.; 7-in. cmtd. 3,814 ft. with 380 sacks.
Continental Oil Co. No. 2 Apex-3, C SE NW sec. 34-36n-65w. Drlg. 3,362 ft.; slight gas sat in Dakota at 3,334-58 ft.
Continental Oil Co. No. 3 Schuricht, C SW NW sec. 5-35-65w. Loc. (first report).
Lewis Gokel No. 1, NE SE NW sec. 31-35n-62w. S.D. 550 ft.; Dakota 453-74 ft.
MacKinnie Oil & Drlg. Co. No. 1 Thompson, NE NW NE sec. 7-35n-65w. Drlg. 1,334 ft.
Ohio Oil Co. No. 8 Lamb, C SW NE sec. 5-35n-65w. Spdg. 406 ft.; drlg. 3,299 ft. in hd. sd.
Ohio Oil Co. No. 5 Converse Sheep, C SE SW sec. 32-36n-65w. S.D. below 4,600 ft.; believed to have cored top of Tensleep.
Ohio Oil Co. No. 5 Putnam, C NW SW sec. 33-36-65w. Rig (first report).
Wickersham & Kyle No. 1 fee, NE NE NE sec. 14-39n-61. Drlg. 150 ft.
S. & H. Dev. Co. No. 1-A Olinger, SW NE sec. 1-36n-63. T.D. 1,700 ft. in Fuson sh.; pulled 4½-in. to rm. to bottom.

Park County

Resolute Oil Co. No. 1 State, C NW SW sec. 16-57n-101w. M.I.M. and R.U. to resume at 3,608 ft.

Sheridan County

Beaver Creek Oil Co. No. 1 Allison, SW SE sec. 15-55n-85w. Drlg. 3,090 ft.

Sublet County

Wright & Lackey No. 1 Haddenham, SE NW SW sec. 21-28n-113w. (Dry Piney); R.U. Fort Worth spudder.

Sweetwater County

Mountain Fuel Supply Co. No. 4 Nightingale, C SW NE sec. 32-16n-104w. Cmtd. 13⅜-in. at 695 ft.; W.O.C.

Washakie County

Bruce C. Teeters No. 1 Brome-Gov't., CNL SW NW sec. 31-48n-90w. T.D. 1,542 ft.; R.U. pmp.; est. at 15 bbls.; top Frontier 1,498 ft.; 8¼-in. cmtd. 1,500 ft.; W.O.C.
Wyoming O. & R. Co. No. 2 Gov't., NW SW SW sec. 31-48n-90w. Drlg. 1,695 ft.; may P.B. to 1,400 ft.; to str.

Weston County

H. D. Wiltse No. 8 Government, NW cor. NE section 17-46-63, in the Osage field, is pumping 19 bbls. daily at a total depth of 308 feet.

Conway Oil Corp. No. 1 Govt., C SE NW sec. 7-41n-60w. T.D. 2,304 ft.; cmtd. 4½-in.; W.O.C.
Chas. Stough No. 1 Govt., SW SW SW sec. 32-47n-64w. Drlg. 200 ft.
Beaver Creek Oil Synd. No. 1 State, C NE NE sec. 23-44n-63w. R.U. and ready to spud; W.O. wtr.
Harkins et al No. 2, NE SW NW sec. 31-46n-63w. Loc.; (first report).

MONTANA

Kevin-Sunburst stocks of crude at the end of April amounted to 499,373 bbls., an increase of 19,284 bbls. as compared with the end of March. Cut Bank had 537,338 bbls. in storage, which is an increase over March of 58,443 bbls.

Carbon County

Bailey-Round Butte Oil Co. No. 1, NW NE SE sec. 3-6s-23. T.D. 1,551 ft.; redrlg. 1,483 ft.

Daniels County

Whitetail O. & G. Co. No. 1, NW NE NW sec. 10-36n-50e. O.W.D.D.; drlg. 1,865 ft.

Fallon County

Montana-Dakota Utilities Co. No. 1 Unit, NE NE NW sec. 17-4n-62e. T.D. 6,797 ft.; P.B. to 6,767 ft. to S.O.W.; tstg.

Fergus County

Minnesota Co. No. 1 Fenholt, SE NW SW sec. 24-21n-18e. Fsg. at 1,100 ft.
Judith Operating Co. No. 2 Government, NW NE sec. 35-22n-17e. Drlg. 1,048 ft.
Kallepel-Kevin Oil Co. No. 2 Emmons, C SW SE sec. 20-21-18e. Drlg. 576 ft.

Glacier County

There were five completions, one of which was a dry hole, and one new operation in the Cut Bank field. The Goodman Oil Co. No. 1 Tribal-129, SW NW SW section 25-33-6w, in the southern part of the field, was plugged and abandoned after drilling through the Ellis to test the Ellis-Madison contact. It topped the Madison at 3,140 feet and was drilled to 3,240 feet. Hole filled with sulfur water. The Sunburst at 2,850-70 feet was dry and the Cut Bank at 2,900-75 and 2,968-75 feet had only a show of oil. The elevation is 3,631 feet.

The Texas Co. No. 6 Morrison, 660 feet south of the NW cor. line, section 22-35-6w, was completed at 3,003 feet and swabbed 138 bbls. the first nine hours and pumped 65 bbls. the first 24 hours from the pay at 2,895-3,902 feet. No Sunburst was encountered. The elevation is 3,815 feet.

The Dakota-Montana Oil Co. No. 4 Winkler, 700 feet from north line and 1,280 feet from west line, section 26-35-6w, swabbed 99 bbls. the first 24 hours at 2,885 feet, total depth, from the pay at 2,839-60 feet. The elevation is 3,881 feet.

R. C. Jeffries No. 4-A Lukens, NE cor. section 12-33-6w, just outside of the town of Cut Bank, swabbed 160 bbls. the first 24 hours at a total depth of 2,994 feet from the pay at 2,971-85 feet. It will be shot.

Tarrant-Long No. 5 Miller, C NE NE section 24-34-6w, swabbed 10 bbls. first nine hours at a total depth of 2,805 feet from the pay at 2,777-2,800 feet. It was shot with 200 quarts. It had a show of oil in the Sunburst at 2,735 feet and 600 feet of oil at 2,755-70 feet.

Cobb-Pardee No. 1 Stufft, C SE NW sec. 25-36n-6w. Top Cut Bank 3,006 ft.; landed 7-in. at 3,010 ft.
Cobb-Pardee No. 2 Morrison, CEL NE SE sec. 24-33n-6w. Rig.
Consol. Gas Co. No. 1 Allotted-114, CNL NE SW sec. 31-33n-5w. Drlg. 2,700 ft.
A. E. Crumley No. 2 Allotted-113, SW NW SE sec. 31-33n-5w. Drlg. 890 ft.; Colo. 485 ft.; 10-in. at 515 ft.
Hannah-Porter Co. No. 1 Allotted-130, C Lot 3, sec. 6-32n-5. Drlg. 1,775 ft.
B. V. Hole No. 1 Tribal, C NW SW sec. 36-33n-6w. M. on loc.
B. V. Hole No. 1 Allotted-124, 640 ft. out of NE cor. sec. 1-32-6w. Stdg. rgd.
Kincheloe-Hanlon No. 2 State, NE NE NE sec. 36-33n-6w. Drlg. 1,960 ft.
Kately No. 4 Drumheller-Ward, SE NE NE sec. 10-34n-6w. Drlg. 2,350 ft.
Manning & Marshall No. 2 Tribal-120, 760 ft. SN, 660 ft. WE, Lot 8 (NW NE), sec. 7-32n-5w. Drlg. 235 ft.
Montana Headlight Oil Co. No. 6 Yunck, C SW NW sec. 1-34n-6w. Spdg.
Montana Power Gas Co. No. 1 Winkler, C SE SE sec. 28-33-5w. Loc. (first report).
Montana Power Gas Co. No. 1 Lagabeer Unit, SE SE NW sec. 17-35n-5w. Drlg. 1,100 ft.; Colo. 545 ft.; 10-in. 537 ft.
Montana Power Gas Co. No. 4 Seeba, SW SW NW sec. 2-34n-6w. Drlg. 2,420 ft.
Montana Power Gas Co. No. 1 Mueller, C SE SE sec. 7-33n-5w. R.U.
Nadeau Bros. No. 1 Ewald, C NE SW sec. 9-32n-5w. Rig.
Par Oil Co. No. 7 Haines, NW SW SW sec. 2-34n-6w. Drlg. 1,560 ft.
Santa Rita O. & G. Co. No. 2 Govt., NW SW NW sec. 31-33n-5w. T.D. 2,801 ft.; R.U. spudder.
Neil Spencer No. 2 Tweedy, 925 ft. NS line, 1,980 ft. W line, SE sec. 25-33n-6w. Drlg. 2,625 ft.
H. R. Patterson No. 1 Miller, C NE NE sec. 1-33n-6w. Drlg. 1,580 ft.
Stanley Gray No. 1 Allotted-132, NW SE NW sec. 22-34-7w. Drlg. 1,850 ft.
Jack Marshall No. 1 Allotted-119, C SE SW sec. 1-32n-6w. R.U.
R. C. Tarrant No. 1 Everett Hope, C NW SW sec. 19-34n-5w. Spdg.
R. C. Tarrant No. 6 Getty, SE NE SW sec. 2-34n-6w. Colo. 515 ft.; 10-in. 535 ft.
Texas Co. No. 1 Govt., C SW NE sec. 17-32n-5w. Drlg. 1,205 ft.; 10¾-in. at 617 ft.; Colo. 515 ft.
Texas Co. No. 2, Unit 9, C SW NE sec. 9-32n-5w. Drlg. 3,110 ft.; swbd. 38 bbls. in 8 hrs.
Wilkinson et al No. 1 Allotted-127, C NE NE sec. 1-32n-6w. Drlg. 410 ft.
Wilkinson et al No. 1 Tribal, 126, C NE NW sec. 7-32n-5w. Cmtd. 7-in. at 2,825 ft.; W.O.C.

(Continued on Page 90)

Kansas Developments

By
DAL DALRYMPLE

OPEN POOLS IN BUTLER AND RUSH; OLD POOLS EXTENDED

Opening of new oil pools and extension of older pools in Kansas continues with monotonous regularity, scarcely a week passing without some wildcat opening a new producing area. The past week was no exception, several wildcats or semi-wildcats showing as producers. Exploration continues over a wide area, and operations generally throughout the state are holding up at the fast pace set early in the spring.

One of the wildcat discoveries of the past week was in Rush County, where National Refining Co. No. 1 Werth, NW NE NE section 7-16-18w, discovered a new oil area. It was drilled to 3,573 feet, total depth, in Siliceous lime, acidized with 5,000 gallons and pumped 444 bbls. of oil in 24 hours. The oil tested 34.5 gravity. Location is on a 5,400-acre block, 10 miles northwest of LaCrosse.

A new area in Butler County was opened at M. B. Armer and others No. 1 Brandt, in section 15-28-7, between Latham and Keighley. It pumped 195 bbls. of oil from Mississippi lime at 2,707 feet. The well was designated as the discovery producer in the Brandt pool. It is several miles from production in the Keighley and Kramer pools. In Cowley County, E. B. Shawver has extended the recently discovered Bahruth pool one location south at No. 1 Dunlap, in section 8-30-4, on an island in the Arkansas River. Top of Bartlesville was 3,276 feet; total depth, 3,323 feet. Oil filled the hole at the rate of 10 bbls. an hour. Shell Petroleum Corp. No. 1 Maughlin, NE NW SE section 11-20-8w, wildcat southeast of Lyons in Rice County, was coring ahead in search of oil. It opened a gas field, but the estimated production of 36,500,000 feet of gas was killed to drill deeper.

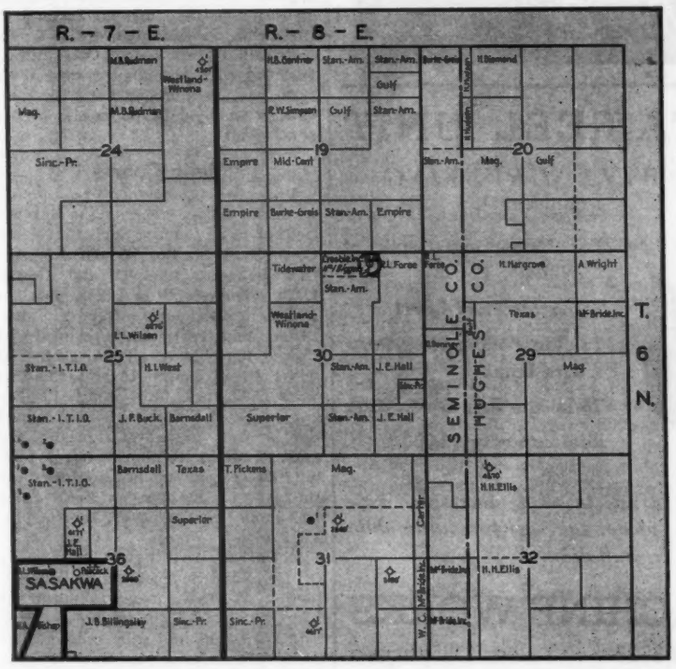
Empire Oil & Refining Co. No. 1 Cunningham, SE cor. section 26-18-1w, wildcat northeast of Canton, in McPherson County, was to acidize after pumping 33 bbls. of oil in 24 hours. Piney Oil & Gas Co. No. 1 English, C NW section 3-29-36w, a wildcat, opened a new gas area in Grant County. It produced 4,000,000 feet of gas in 24 hours from sand at 2,950 feet.

The newly discovered Hauschild pool of southern Rice County continued to hold attention of Kansas oil men. The Shaffer and others well, estimated at 10,000 bbls. daily, was officially completed. Darby Petroleum Co. had the fourth producer in the area at No. 2 Johnson, NE SE SW section 10-21-7w, flowed 2,160 bbls. of oil from Chat topped at 3,376 feet. Same operator's No. 3 Johnson was coring, in quest of Chat, which has proven a prolific oil horizon in this region.

Several new wildcat tests were started during the week, a brisk lease play is under way in the far western Kansas counties, and many old areas are active.

Rice County

One of the biggest producers of the year in Kansas was completed at the E. J. Shaffer and others No. 1 Hauschild, NW NW NE section 15-21-7w, in the new Hauschild pool of southern Rice County. After stopping at 3,379 feet, total depth, it flowed 365 bbls. of oil in 50 minutes. Later it flowed 2,431 bbls. in five and one-half hours and made potential of 10,040 bbls. Production was from Chat, topped at 3,370 feet.



Jones Brothers & Carpenter and others have opened a new Siliceous lime pool in Ellis County, Kansas, at No. 1 Solomon, section 28-11-19w, south of Zurich

(Mid-Continent Map Co., Wichita, Kans.)

In the Silica area, Phillips Petroleum Co. and Indian Territory Illuminating Oil Co. No. 1 Krampe, NE NE SE section 31-19-10w, was completed at 3,285 feet, total depth, in Siliceous lime topped at 3,270 feet. It made potential of 1,686 bbls. of oil. Hutchinson Oil Co. No. 1 Wendell, SW SW NE section 32-19-10w, an old well, was deepened from 3,294 feet to 3,305½ feet and made potential of 2,020 bbls., recompleted.

Skelly Oil Co. No. 2 Sharpe, SW NW NW section 8-20-9w, in the Chase pool, made potential of 1,013 bbls. of oil, with 25 bbls. of water, after acidizing. It had Siliceous lime at 3,256-90 feet, total depth. Sinclair Prairie Oil Co. No. 5 Sharpe, NE cor. section 7-20-9w, was acidized a second time, made potential of 406 bbls. of oil, with 200 bbls. of water, and was completed at 3,262 feet, total depth. After first acidization, it swabbed 415 bbls. in 15 hours. Siliceous lime was topped at 3,242 feet. Duwe & Schneider No. 1 Wright, NE cor. section 36-21-7w, wildcat, was dry and abandoned at 3,525 feet, total depth. Top of Kansas City lime was 2,925 feet; Conglomerate, 3,492 feet; Chat, 3,513 feet. John Rogers No. 1-A Freeman, SE NE SE section 4-21-6w, in the Welch area, was abandoned at 1,540 feet, total depth.

The following new work was started in Rice County: Magnolia Petroleum Co. No. 1 Sharpe, NW SW NW section 8-20-9w, building rotary rig; McPherson Drilling Co. and others No. 1 Yaple, SW SE SE section 10-21-7w, cellar; Douglas Oil & Gas Co. No. 2 Hauschild, C N half N half NW section 15-21-7w, ponds; same operator's No. 1 Hauschild, NE NE NW section 15-21-7w, an old well being deepened, was drilling at 3,386 feet with hole loaded.

Slick, Pryor & Lockhart and others No. 1 Habiger, SE NE NE section 5-18-10w, topped Siliceous lime at 3,250 feet; total depth, 3,272 feet. It pumped 268 bbls. of oil in 24 hours but had not been completed. Gulf Oil Corp. No. 2 Emma Steckel, SE SE NE section 31-19-10w, topped Siliceous lime at 3,279 feet; total depth, 3,297 feet, and produced 1,022 bbls. of oil in 19 hours.

Estimated Production

Estimated daily average production in Kansas for the week ending June 13 and for the preceding week is as follows:

	Barrels	
	June 13	June 6
Oxford City	5,200	6,650
Burrton	11,625	12,400
Ritz-Canton	6,225	6,400
Hollow-Nikkel	3,900	3,950
Voshell	2,850	3,075
Ellsworth County:		
Lorraine-So. Lorraine	7,399	4,978
Other pools	1,985	1,940
Rice-Barton Counties:		
Chase	9,559	8,824
Raymond	4,964	3,130
Silica	11,439	5,074
Keesling	2,867	2,332
Miscellaneous Rice	4,680	3,399
Miscellaneous Barton	3,178	2,193
Russell County:		
Fairport	2,572	3,145
Gorham	3,728	2,370
Russell	2,612	844
Sullivan	2,147	2,360
Other pool	7,515	5,118
Sedgwick County:		
Valley Center	1,319	1,337
Greenwich	1,302	1,456
Robbins	1,506	1,542
Eastborough	819	828
Other pools	482	383
Ellis County	1,143	1,221
Kingman County	523	632
Stafford County	1,717	1,346
Greenwood County	10,100	10,000
Butler County	17,980	18,050
Other fields	20,989	21,073
Total Kansas	152,325	135,150

Russell County

Only one new producer was completed in Russell County. It was Central Petroleum Co. No. 2 Rusch "B," NE NE SW section 19-12-15w, in the Fairport area. It was acidized with 5,000 gallons and made potential of 545 bbls. of oil. Top of Anhydrite was 946 feet; Oswald lime, the producing formation, 3,011 feet; total depth, 3,075 feet. Darby Petroleum Corp. No. 2 Steinert, SE SW SW section 25-15-15w, had several showings of oil but was dry and abandoned with a hole full of water at 3,419 feet, total depth. Anhydrite was topped at 927 feet; Oswald, 3,142 feet; Siliceous, 3,405 feet. P. G. Reynolds No. 1 Fredrickson, SE SW SE section 6-13-12w, wildcat, topped Anhydrite at 740 feet; Oswald, 2,987 feet; total depth, 3,170 feet. It was plugged back to 3,040 feet, acidized but failed to get commercial production, and was dry and abandoned. Stanolind Oil & Gas Co. No. 4 Booth, NE NW NE section 29-11-15w, an old well, was deepened to Gorham sand at 3,252-53 feet, total depth, made potential of 364 bbls. of oil and was recompleted.

New work in Russell County: Lee & Reser No. 1 Penix, SW SW SE section 13-14-13w, wildcat, was moving in material; Derby Oil Co. No. 1 Michaelis, NE SE NW section 31-15-13w, rigging up; Skelly Oil Co. No. 2 Figgins, NW SW SW section 34-15-

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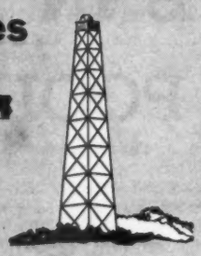

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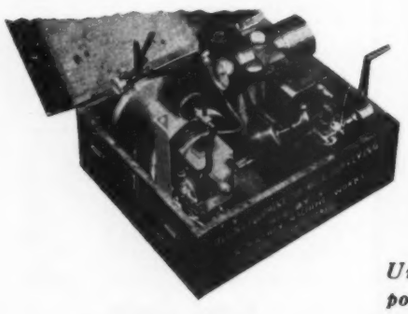

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13w, location; Phillips Petroleum Co. and Indian Territory Illuminating Oil Co. No. 1 Wineteer, SW SW SE section 19-13-14w, an old well being deepened, topped Siliceous lime at 3,246 feet, had some saturation in cores at 3,249-50 feet, and was waiting on cement, after setting 7-inch casing at 3,248 feet.

Gulf Oil Corp. No. 4 Ehrlich, SW NW NW section 1-14-15w, topped Gorham sand at 3,304 feet; and at 3,316 feet, total depth, it swabbed 265 bbls. in 10 hours. Same operator's No. 1 Ehrlich, SW SW NW section 1-14-15w, an old well, was deepened from 3,066 feet to 3,099 feet, plugged back to 3,078 feet, and pumped 990 bbls. of oil and 27 bbls. of water in 21 hours. Empire Oil & Refining Co. No. 4 Crawford, SE SW SW section 2-14-15w, topped Oswald lime at 3,027 feet; Gorham sand, 3,298 feet, drilled to 3,300 feet and 2,700 feet of oil rose in the hole in six hours. Darby Petroleum Co. No. 3 Dumler, SW NW NW section 11-14-15w, had Gorham sand at 3,279-87 feet, total depth, and pumped 365 bbls. of oil and 149 bbls. of water in nine hours. Hartman & Blair No. 2 Harbaugh, SE NE SW section 25-14-15w, topped Oswald lime at 2,904 feet and was bottomed at 3,050 feet. It was acidized with 5,000 gallons and made potential of 342 bbls. of oil.

Reno County

Two good producers were completed in the Seedle sector of the Burrton field of Reno County. Shell Petroleum Corp. No. 2 Seedle, SW SW NW section 16-24-4w, pumped and flowed 1,720 bbls. of oil and 258 bbls. of water in 24 hours, after acidizing. Before acid treatment, it pumped and flowed 453 bbls. of oil and 2 bbls. of water in 24 hours. It had Chat at 3,302-3,393 feet, total depth. Derby Oil Co. No. 4 Seedle, C S half N half SW section 17-24-4w, flowed 1,432 bbls. of oil in 24 hours after acidizing. Before treatment, it flowed at the rate of 20 bbls. an hour. Chat was topped at 3,307 feet; total depth, 3,377 feet.

McPherson Drilling Co. and Derby Oil Co. No. 3 Scheuchzer, SE SE SW section 17-24-4w, made potential of 1,746 bbls. of oil in 24 hours after acid treatment and was completed at 3,375 feet, total depth. Top of Chat was 3,308 feet. It pumped and flowed 545 bbls. in 21 hours before acidizing. Texas Co. No. 6 Collins, SE NW NW section 16-24-4w, topped Chat at 3,294 feet and was completed at 3,384 feet, total depth. It pumped 134 bbls. in 24 hours, was acidized and pumped and flowed 536 bbls. of oil, w[illegible] 0 per cent water, in 24 hours. Shell Petroleum Corp. No. 1 Mardis, C SW NW section 10-24-4w, an old well, was deepened to 3,425 feet, then plugged back to 3,388 feet and pumped 72 bbls. of oil and 80 bbls. of water in 24 hours, recompleted.

New work in Reno County follows: Sinclair Prairie Oil Co. No. 2 Collins, SE NW SW section 3-24-4w, location; same operator's No. 1 Showalter, SE cor. section 8-24-4w, cellar; same operator's No. 3 Seedle, NE cor. section 17-24-4w, location; Shell Petroleum Corp. No. 3 Hoskinson "A," C NW SE section 9-24-4w, moving in material.

Barton County

Mid-Continent Petroleum Corp. No. 6 Matzek, NE SW SE section 25-19-11w, in the Barton County sector of the Silica area, was completed at 3,289 feet, total depth, and after acid treatment made potential of 2,416 bbls. of oil. Production was from Siliceous lime topped at 3,278 feet. It was the only completion of the week in the county.

Rig had been built for a wildcat test at F. E. Bailey and others No. 1 Hammeke, NE NE SW section 12-18-12w. Other new Barton County work: National Refining Co. No. 2 McLean, NW SW SE section 25-17-11w, rig; Spencer Drilling Co. No. 1 McLean, SW NW SE section 25-17-11w, location.

Rush County

National Refining Co. No. 1 Werth, NW NE NE section 7-16-18w, wildcat in northern Rush County, south of the Ruder pool, was acidized with 5,000 gallons and pumped 22 bbls. of oil an hour for 16 hours. It had not been completed. Oswald lime was topped at 3,328 feet; total depth, 3,572 feet.

Ellsworth County

James Davis No. 2 Edwards, NW SW SE section 34-17-8w, in Ellsworth County, topped Siliceous lime at 3,235 feet and was completed at 3,242 feet, total depth. It made potential of 1,480 bbls. of oil in 24 hours, down two hours and 40 minutes.

Work had started at two new Ellsworth County tests. Roy Ramsey and others No. 1 Gregory, SW SW SE section 25-16-9w, was rigging up; Empire Oil & Refining Co. and others No. 2 Janssen "B," NE SE SW section 34-17-8w, was moving in material for a communitized test.

Empire Oil & Refining Co. No. 1 Janssen "B," SE SE SW section 34-17-8w, was acidized and made potential of 806 bbls. of oil. It was acidized again with 3,000 gallons, but had not been tested. Total depth was 3,258 feet. Top of Siliceous lime was 3,216 feet.

Ellis County

Yarnell & Carlson abandoned the No. 1 Phillip, NW NW SE section 2-14-18w, Ellis County wildcat, after getting a hole full of water at 3,663-65 feet, total depth. Top of Anhydrite was 1,227 feet; Oswald, 3,332 feet; Siliceous lime, 3,610 feet.

New work in Ellis County follows: Margay Oil Co. No. 5 Bemis "A," SW

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SW SE section 16-11-17w, building rotary rig; Uscan Oil Co. No. 3 Bemis, SE NE NE section 21-11-17w, moving in material; Bridgeport Machine Co. No. 1 Ubert, NE NE NW section 12-13-18w, wildcat, rig; Philhan Oil Co. No. 1 Gerstner, SW SW SE section 24-14-17w, wildcat, building rig; Tom Palmer & Storm King Oil Co. No. 1 Fritz Ruder, SW SW NW section 9-15-18w, moving in material; same operators' No. 2 C. Ruder, NE NE SE section 8-15-18w, spudded; Deep Rock No. 1 Hadley, SW SW NW section 20-11-17w, an old well being deepened, drilling at 2,478 feet.

Jones Brothers & Carpenter and others No. 1 Solomon, SE SE SW section 28-11-19w, wildcat in northwestern Ellis County, was looking like a new pool opener. It topped Siliceous lime at 3,629 feet, drilled to 3,632 feet, and 1,500 feet of oil rose in the hole in 12 hours. It had not been tested.

McPherson County

Continental Oil Co. and others No. 2 Goering, NE NE SW section 29-21-1w, was the only McPherson County completion. It topped Hunton lime at 3,270 feet; Chat, 2,915 feet; total depth, 3,308 feet. After acidizing with 4,000 gallons, it pumped 469 bbls. of oil in 17 hours and made potential of 572 bbls.

Work had started at one new test in McPherson County. Progressive Oil Co. No. 2 Locquement, C S half NE section 32-19-1w, was drilling at 200 feet.

Butler County

El Dorado Refining Co. No. 3 Huston, NE SE NW section 1-25-3, in the Potwin area, was the only Butler County completion. After acid treatment, it made potential of 130 bbls. of oil. Lime was topped at 2,690 feet; total depth, 2,705 feet.

Greenwood County

W. M. Moore Oil & Gas Co. No. 6 Pixlee, SE SE NE section 7-22-10, in the Pixlee area of Greenwood County, had sand at 2,347-61 feet, total depth, was shot with 60 quarts and pumped 120 bbls. of oil in 24 hours, completed. Barbara Oil Co. No. 17 Pixlee, NE NW SW section 8-22-10, pumped 40 bbls. of oil in 24 hours and was completed at 2,518 feet, total depth. Top of Mississippi lime was 2,393 feet. Shaffer & Howell No. 5 Sauder, NW NE SE section 16-23-13, in the North Virgil area, topped lime at 1,718 feet and was completed at 1,739 feet, total depth. After acidizing, it pumped 30 bbls. of oil in 24 hours. Markus and others No. 4 Smith, NE NW NE section 6-24-12, in the Hamilton pool, had lime at 1,818-58 feet, total depth, and produced 1½ bbls. of oil in 24 hours, but it was dry and abandoned after acidizing failed to increase production.

New work in Greenwood County: H. S. Moss Petroleum Co. No. 7 Pixlee, SE NE SE section 7-22-10, spudded; Barbara Oil Co. No. 18 Pixlee, SE NW SW section 8-22-10, rigging up.

Sumner County

Two producers were completed in the Wellington area of Sumner County. E. B. Shawver No. 3 Barlow, SW SW NE section 33-31-1w, topped Chat at 3,644 feet and was completed at 3,682 feet, total depth. It was acidized with 2,000 gallons and then 4,000 gallons and made potential of 429 bbls. of oil. Stelbar & Dewar Oil Co. No. 1 Barlow, NW NE SE section 33-31-1w, made potential of 162 bbls. of oil after acid treatment. Top of Chat was 3,647 feet; total depth, 2,692 feet.

New work in Sumner County was as follows: Olson Drilling Co. and Shell Petroleum Corp. No. 7 Community, NW NE NE section 14-32-2, an old well, was rigging up rotary to deepen; Lario Oil Co. and Barnsdall Oil Co. No. 9-A Wenrich, C W half NE NW section 23-32-2, an old well, was rigging up to deepen.

Cowley County

E. B. Shawver completed No. 3 Joslyn, NE SW SW section 11-30-4, in Cowley County, at 2,780 feet, total depth. It topped sand at 2,726 feet, had pay at 2,742-52 feet and pumped 40 bbls. of oil in 24 hours.

The following new work in Cowley County was started: E. B. Shawver No. 4 Joslyn, NW SE SW section 11-30-4, location; Derby Oil Co. No. 2 David, NW SW NE section 2-31-4, set 10-inch casing at 75 feet, waiting on cement; Saco Oil Co. No. 1 Saunders "B," SE NW NE section 31-31-6, drilling at 915 feet.

Sedgwick County

Collins and others No. 1 Skinner, SE cor. section 4-27-1, in Sedgwick County, was abandoned at 600 feet, total depth.

Woodson County

Henderson Oil Co. No. 1 Vostarz, NW NE NE section 23-23-14, in the Hoagland area of Woodson County, had Mississippi lime at 1,595-1,633 feet, total depth, and pumped 187 bbls. of oil in 24 hours, completed. Bell & Alexander No. 1 Kash, NW cor. section 26-23-14, pumped 15 bbls. of oil a day and was completed at 1,622 feet, total depth. Lime was topped at 1,617 feet.

Work had started at one new Woodson County test. C. L. Sheedy No. 7 Klick, SW SE SE section 20-25-14, was rigging up.

Petroleum Year Book

The 1936 issue of the Oil and Petroleum Year Book compiled by Walter E. Skinner, and published annually in May for 27 years has just been issued. The book covers 464 pages and gives particulars concerning 680 companies in producing, carrying and marketing oil, financing oil development, or directly associated with the oil industry in all parts of the world. Lists are also given of the officials connected with the companies and comprise 2,500 directors, 334 secretaries and 211 consulting engineers, managers, agents, etc., their names and addresses and company connections.

The particulars of each company include directors and officials, location of property or description of business, purchase consideration, oil production, capacity of refineries, capital, dividends and financial position by latest accounts. Other features are the monthly production for 13 months ended April 30, 1936, of the principal British oil companies, list of 634 trade names of petroleum products and a glossary of 136 technical terms and words. The book is published by Walter E. Skinner, 15, Dowgate Hill, Cannon Street, London, E.C.4. Price 10s. net, or post free (abroad) 11s.

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West and North Texas

By
L. E. BREDBERG

WILDCAT IN GAINES COUNTY HAS PROMISING INDICATIONS

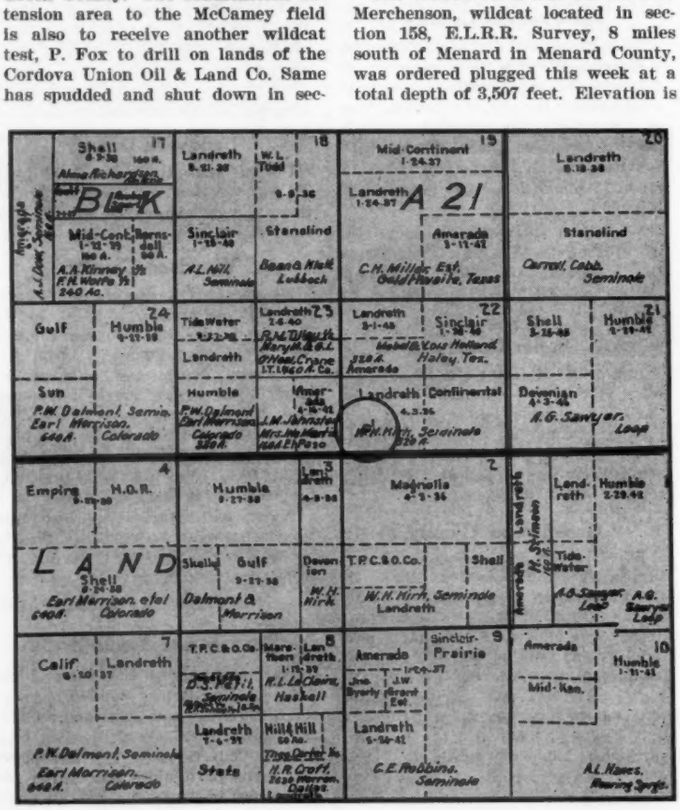
FORT WORTH, Tex., June 15.—Gaines County held the spotlight this week as one extreme wildcat in the county cored saturated lime and another interesting location was made by a major company, the Humble Oil & Refining Co., on a trend that looks promising, and in which one gas discovery has already been made within the past few months.

Landreth Production Co. No. 1 W. H. Kirk, in section 22, Block A-21, P.S.L. Survey, attracted widespread attention this week as it cored some 30 feet of lime showing varying degrees of saturation and porosity. A core taken at 4,735-53 feet, in which 17 feet of brown, crystalline lime carrying oil saturation and slightly porous, was taken, was one of the best showings yet found in the test, from which cores have been taken from 4,702 feet on down. However, heavy mud is being used in drilling the test, which subjects the saturated streaks and possible lime pay zones to heavy pressures, possibly holding back oil and gas in the formations, and nothing definite can be gleaned from the saturated streaks under these conditions and until a drill stem test is made, or the mud unloaded from the hole. A test will probably be made within the next few days, and if production is not found in streaks already cored it may be carried deeper. In case no further showings are logged the streaks already cored will no doubt be acidized in an effort to make a producer from the saturated lime.

Elevation of the test is 3,271 feet. It is located near the center of a geophysical high about 9 miles northwest of the Means field in Andrews County, and about the same distance southeast of a gas discovery made about 4 miles northwest of Seminole in Gaines County a few months ago.

The Humble Oil & Refining Co., one of the companies most interested in the Landreth showings, and which holds most of the producing and proven acreage in the Means field in northern Andrews County, is building derrick in the SW cor. of section 6, Block AX, about 6 miles north and west of the Landreth-Kirk wildcat, but slightly west of the trend between the Means field in Andrews and the Gaines County gas discovery.

Five other locations were staked for wildcats in West Texas this week, with another wildcat to be drilled north of Abilene in Taylor County and a permit applied for a wildcat test in Fisher County. Jones County is to receive two more wildcat tests, one by the Consolidated Oil Co. on the Hamilton lands in section 21, Block 4, H.&T.C. Survey, and the other by W. K. Woods and others on the McCreight lands in section 14, Orphan Asylum Lands Survey. This test has spudded and shut down temporarily. E. R. Minshall has spudded and shut down at 75 feet on his No. 1 Banker in section 25, Block 146, T.&St.L. Survey, in Pecos County, and a spudder has been moved in for a test by E. E. Webb on the D. B. Horn lands in section 137, Washington County Railroad Survey, Tom Green County. The southeastern extension area to the McCamey field is also to receive another wildcat test, P. Fox to drill on lands of the Cordova Union Oil & Land Co. Same has spudded and shut down in section 17, Block 1, M.K.&T. Survey, Upton County.



Map showing location of Landreth Production Co.'s No. 1 Kirk, in Gaines County, the most closely watched wildcat in the Permian Basin, West Texas. It cored saturated lime from 4,705-08 feet

Two wildcats were abandoned in Jones County this week, one drilled by Thomas Humphreys on the Duke lands, and Jamison and others No. 1 Triplett, both in the Hawley area, were given up as failures. The former was ordered plugged at 2,592 feet and the latter at 2,500 feet.

The Wilcox Oil & Gas Co. No. 1 L. Merchenson, wildcat located in section 158, E.L.R.R. Survey, 8 miles south of Menard in Menard County, was ordered plugged this week at a total depth of 3,507 feet. Elevation is 2,190 feet. Two semiwildcats were abandoned in Pecos County and a shallow test about 12 miles north of Brady in McCulloch County was ordered abandoned at 848 feet. Poulter and others, who have drilled several tests in that area, three of which proved gas wells, drilled this failure.

A. R. Forster of Coleman is to drill the test 2 miles northwest of Abilene in Taylor County, on the O. C. Prescher farm. It will be carried to 2,250 feet by cable tools, trying for production from all of the Hawley producing sands. Rig is being moved in now in section 14, J. R. Shipman Survey.

The Owens-Snebold Oil Corp. of Fort Worth is to sink a King sand wildcat in eastern Jones County, about 5 miles southwest of Jueders, in Lot 5, William C. Walker Survey. Frank Oyster of Abilene assembled a block and also is interested in a wildcat to be drilled 1½ miles southwest of Jueders in quest of King sand production. Charles M. Barnes is to drill this test.

An important test drilling in northern Ward County by the Superior Oil Co. on the Hughes ranch, in section 67, Block 34, H.&T.C. Survey, southeast of Pyote, struck a hole full of sulfur water at 3,120 feet and was ordered abandoned at that total depth. Elevation is 2,619 feet. This test is about 6 miles west of production.

Jones County Strike

N. H. Martin appears to have a wildcat discovery in the making in his No. 1 E. B. Spurrier, in section 1, William C. Walker Survey, about 3 miles north of Nugent, and about 6 miles southwest of the Lueders field and 2 miles northeast of production on the Jones lease in the Sandy Ridge pool. The test logged the Cook sand at 1,831 feet and filled 150 feet with oil on last reports. The Sandy Ridge pool is producing from the Bluff Creek sand, consequently this test will prove another pay horizon for the pool if it makes a producer.

Water in Wildcat

Water drowned out the hopes of D. C. Read, C. J. Schmidt and others in their Permian lime test on the Walter Pike ranch, in section 24, Block 33, Township 1n, T.&P. Survey, 1½ miles northwest of Big Spring in Howard County, this week, when it was encountered at 3,274 feet. However, the operators may carry the hole down to 5,000 feet as a test drilled on the Guitar ranch several years ago, in the same area, made a considerable amount of oil before it was abandoned at 4,200 feet. The Pike test topped the lime at 2,295 feet.

Three tests are slated to be drilled in the McDowell area of Glasscock County, where the Fleetborn Oil Corp. recently abandoned a test on the Dodson lands. A new test is expected to be sunk in section 13, Block 34, Township 3s, T.&P. Survey, and the California Co. and Honolulu Oil Corp. are planning on drilling a wildcat in section 25, Block 35, Township 3s, T.&P. Survey, southwest of the Fleetborn dry hole. The Shell Petroleum Corp. is reported planning a test to the northwest of the McDowell production.

There were 27 locations staked in the West Texas district this week and 39 tests were completed, seven of which were dry. The producers yielded a total of 15,172 bbls. of new production, all of which was produced on choke or on a one-hour test.

Ranger and Wichita Falls

There were 53 tests completed in the Wichita Falls district this week, 29 of which proved dry. The remainder yielded a total of 1,411 bbls. new production. Forty-four new locations were staked for tests in the district this week, activities holding at a steady rate.

Two new wildcats are preparing to spud in Montague County, Clay County is slated for a 4,000-foot test, and other wildcats are starting or planning on starting up in the near future throughout the district.

The two new tests in Montague County are to be drilled by Crenshaw & Grisso Royalty Co. on the Annie Jorand tract in the Thomas Jackson Survey, and the other by Bowden, Anderson and Lancaster in the J. M.

Buck lands in the D. F. Mallard Survey. The former is to go to 4,000 feet and is situated 2 miles east of Nocona. The other is to go only to 2,500 feet and is located about 6 miles south of St. Jo.

A 4,000-foot test has been contracted for by Golding & Cochran interests of Dallas in the Bluegrove area of Clay County, on lands of Ben Nutter in Block 30, Grayson County School Lands.

An important wildcat drilling in the Warren's Bend area near the river and in the extreme northern part of Cooke County, was abandoned this week at a total depth of 4,729 feet. It was drilled by the Sunray Oil Co. and others on the McCall ranch, in the W. H. White Survey. It has been one of the more important tests drilling in the entire district, being especially interesting to Oklahoma operators who have been watching developments in southern Oklahoma and in counties in northern Texas, holding to the belief that production would be carried across from one state to the other.

The Bruhlmeyer pool, about 3 miles east of Gainesville in Cooke County, has received its second producer this week in J. L. Anderson No. 1 Bruhlmeyer, located in the Strong Survey. It was completed in sand logged at 2,033-42 feet, and although not thoroughly cleaned out looked better than the discovery well which made more than 700 bbls. per day on initial gauge.

Panhandle District

There were nine producers completed in the Panhandle district this week, seven of which were oil producers and the other two gassers. The oil producers made a total of 2,358 bbls. of new production for the district.

Another Wildcat for Childress

The second wildcat location to be staked in as many weeks was reported for Childress County this week. G. W. Thomson and Fain Drilling Co. have made same on the Russell ranch in section 544, Block H, W.&N.W. Survey, near the Cottle County line and just a mile north of a dry hole drilled on the Yarbrough ranch and completed but a couple of months ago. Everett Carpenter worked the geology on the area surrounding the new location and Mr. Thomson assembled a block of some 2,000 acres for the test.

WEST TEXAS COMPLETIONS

Crane County

Duffy and others No. 10 Cowden, 2,340-2,530 feet, shot and acidized, 156 bbls. M. F. Turner No. 1 Hughes, 2,375-2,414 feet, acidized, 362 bbls. Humble Oil and Refining Co. No. 2 Tubbs, 4,284-4,375 feet, acidized, 1,025 bbls.

Ector County

Landreth Production Co. No. 3-C Kloh, 4,190-4,280 feet, shot, 390 bbls., through casing. Sinclair Oil Co. No. 2-B Wight, 4,132-4,237 feet, shot, 278 bbls. Stanolind Oil & Gas Co. No. 29 Cowden, 4,020-4,285 feet, shot, 623 bbls.; No. 31 Cowden, 3,970-4,274 feet, shot, 778 bbls.

Glasscock County

Continental Oil Co. No. 6-S Settles, 1,216-1,240 feet, 19 bbls. first hour.

Howard County

Continental Oil Co. No. 21 Settles, 2,235-2,449 feet, shot and acidized, 30 bbls. per hour. Merrick and Lamb No. 4 Bell, 2,470-2,812 feet, shot and acidized, 108 bbls. per hour.

Jones County

Humphreys No. 1 Duke, dry and abandoned 2,592 feet; No. 12 Dorsey, 2,208-2,215 feet, 538 bbls. Knight & Ewing No. 2 Farrow, 1,941-51 feet, 150 bbls. Jamison and others No. 1 Triplett, dry and abandoned 2,500 feet.

McCulloch County

Poulter and others No. 2 Dutton, dry and abandoned 848 feet.

Menard County

Wilcox Oil & Gas Co. No. 1 L. Merchenson, dry and abandoned 3,507 feet, elevation 2,190 feet.

Pecos County

Davis and White No. 1 Fromme, dry and abandoned 1,637 feet, elevation 2,429 feet. G. Smith No. 1 Skelly-Masterson, 1,417-90 feet, shot, 623 bbls. oil and 7 bbls. water per day. Myers No. 1 McKenzie, dry and abandoned 1,920 feet. Stanolind Oil & Gas Co. No. 20-B Tippett, 458-494 feet, 65 bbls. Brown No. 14 Tippett, 495-515 feet, 63 bbls. Baker No. 4 Sinclair-Douglas, 349-352 feet, 201 bbls. Cardinal Oil Co. No. 8-A Smith, 341-348 feet, 242 bbls.; No. 1-C Smith, 1,695-1,742 feet, 4 bbls. through 1-inch tubing. Marathon Oil Co. No. 13-H Yates, temporarily abandoned 1,617 feet.

Winkler County

Amerada Petroleum Corp. No. 1-A Walton, 2,884-3,150 feet, shot, 367 bbls. Tide Water Oil Co. No. 2 Walton, 2,795-2,945 feet, shot, 1,431 bbls.; No. 3 Walton, 2,814-2,949 feet, shot, 1036 bbls. H. Adams No. 2 Sealey, 3,088-3,130 feet, plugged back to 3,026 feet, shot, 375 bbls.

Gulf Oil Corp. No. 3 Daugherty, 2,865-3,000 feet, shot, 174 bbls. Shell Petroleum Corp. No. 5-J Hendricks, 2,900-3,025 feet, shot and acidized, 245 bbls. Skelly Oil Co. No. 1 Daugherty, 2,757-3,025 feet, shot, 350 bbls. Sinclair Prairie Oil Co. No. 3-B Cummins, 2,813-2,904 feet, shot, 811 bbls.

Ward County

The California Co. No. 21 Gordon, 2,447-2,525 feet, shot, 1,255 bbls.; No. 3 Adams, 2,462-2,584 feet, shot, 921

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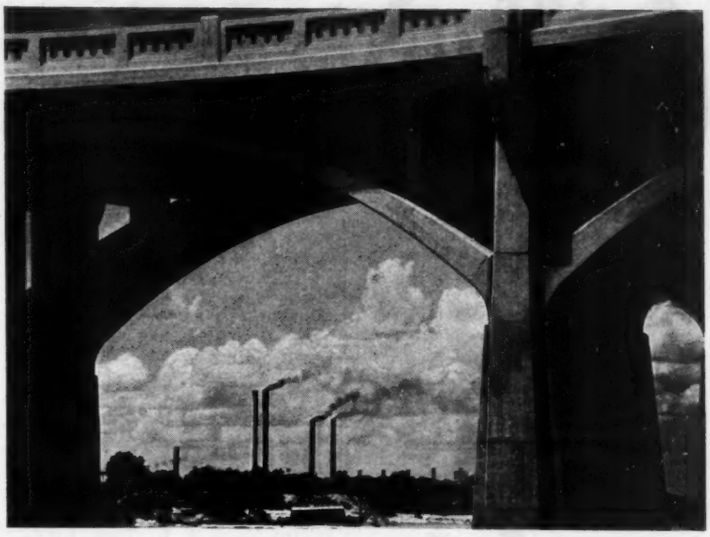

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bbls. Sinclair Prairie Oil Co. No. 1 Mosser 2,250-2,350 feet, shot, 594 bbls. F. H. E. Oil Co. No. 1-A Richter, 2,472-2,570 feet, shot, 566 bbls. Rio Bravo Oil Co. No. 4 Alcott, 2,272-2,530 feet, shot, 1,392 bbls. Superior Oil Co. No. 1 Hughes, dry and abandoned 3,210 feet, elevation 2,619 feet.

NORTH TEXAS COMPLETONS

Archer County

Continental Oil Co. No. 1 J. H. Turbeville C, 1,039 feet, dry. Hamilton Petroleum Co. No. 41 Abercrombie, 1,165-77 feet, 65 bbls. W. T. Hutcheson, Jr., No. 1 Wilson C, 1,451 feet, dry. Kittery Oil Co. No. 1 Junker & Kunkel, 1,317 feet, dry. C. B. Long No. 10 Turbeville, 1,297-1,300 feet, 12 bbls. A. P. Nicholson No. 1 H. O. Prideaux, 741 feet, dry.

Perkins & Cullum No. 1 P. P. Langford, 2,850 feet, dry. D. L. Pickering No. 1 J. A. Bell, 364 feet, dry. Riner & Massie No. 1 L. F. Wilson, 2,241 feet, dry. Shappell Oil Co. No. 1 C. E. Carter, 1,204 feet, dry. Texas Co. No. 6 Haytor, 1,428-37 feet, 12 bbls. Underwood & Campbell No. 15 R. Campbell B, 1,016 feet, dry.

Clay County

Flynn Brothers No. 2 John Barry, 840 feet, dry.

Cooke County

J. L. Flowers No. 1 Mrs. E. L. Bash, 1,393 feet, dry. Harrison & Dillard No. 5 R. W. Trew, 1,224-52 feet, 150 bbls. Hudspeth and others No. 6 F. J. Trubenbach B, 1,332-37 feet, 48 bbls.; No. 7 F. J. Trubenbach B, 930-38 feet, 25 bbls.

Lanier and others No. 1 J. Thetford, 1,836 feet, dry. Pace Petroleum Corp. No. 5 R. E. Aldridge, 1,128-64 feet, 71 bbls. Peckham Oil Co. No. 2 S. D. Meador, 1,830 feet, dry. W. F. Russell No. 1 Belle Payne, 1,800 feet, dry. Sunray Oil Co. and others No. 1-A McCall, 4,729 feet, dry.

Wichita County

Coleman & Coppeck No. 2 G. A. Hoge, 844 feet, dry. Continental Oil Co. No. 1 Waggoner Bros. E, 1,296-1,308 feet, 145 bbls. G. W. Cooper No. 39 Waggoner Bros., 1,302-26 feet, 20 bbls. Fain McGaha No. 2 S. P. Gibson, 2,067 feet, dry. Floyd Pace No. 9 Foster & Allen, 465-68 feet, 6 bbls.

Rathke Oil Co. No. 1 Maer Staniforth "Texas," 904 feet, dry; No. 3 J. A. Watkins, 903 feet, dry. H. L. Rugeley No. 11 Waggoner, 1,883-97 feet, 76 bbls. Texas Co. No. 426 Waggoner A, 1,567-1,608 feet, 51 bbls.

Jack County

Brazos River Gas Co. No. 3 Moore-Clayton, 2,994-3,018 feet, 19 bbls. Iron Mountain Oil Co. No. 1 G. M. Helvey, 2,952-3,025 feet, 150 bbls. Lewis Petroleum Co. No. 1 Birdwell, 3,008-25 feet, 15 bbls. M. L. Wolliford No. 1 C. L. Henderson, 369-71 feet, 4 bbls. Martin Yell No. 2 Peterson, 322-39 feet, 6 bbls.

Montague County

Continental Oil Co. No. 29 N. J. Howard, 1,395-99 feet, 34 bbls. A. H. Rosenberger No. 1 T. S. Meador estate, 2,492 feet, dry. Texas Co. No. 9 R. W. Cunningham B, 945-53 feet, 47 bbls. H. H. Wegener No. 1 J. E. Lemons, 2,112 feet, dry.

Young County

S. S. Alexander and others No. 6 W. B. Howard, 905-17, 100 bbls. L. T. Burns No. 1 George B. Hamilton A, 974 feet, dry. Collins and others No. 1 I. E. Self, 703-15 feet, 15 bbls. N. D. Dollins No. 1 J. A. Cole, 712-16 feet, 10 bbls. B. C. Gilmore No. 1 H. O. Prideaux, 494-915 feet, 5 bbls. Kimmell Lea & Co. No. 13 F. M. Cullers, 581 feet, dry. Premier Investment Co. No. 1 Ora Baze, 691 feet, dry.

Solo Oil Co. and others No. 9 O. B. Stowe, 1,045-66 feet, 325 bbls. Texas Co. No. 8 J. K. Jeffery A, SSO, 773-86, completed as key well.

Barton & Scott No. 1 Rhodes, temporarily abandoned location. M. R. Hart No. 1 McCluskey, 370 feet, dry. Pitzer & West No. 1 Harrell, 4,025 feet, dry.

Wilbarger County

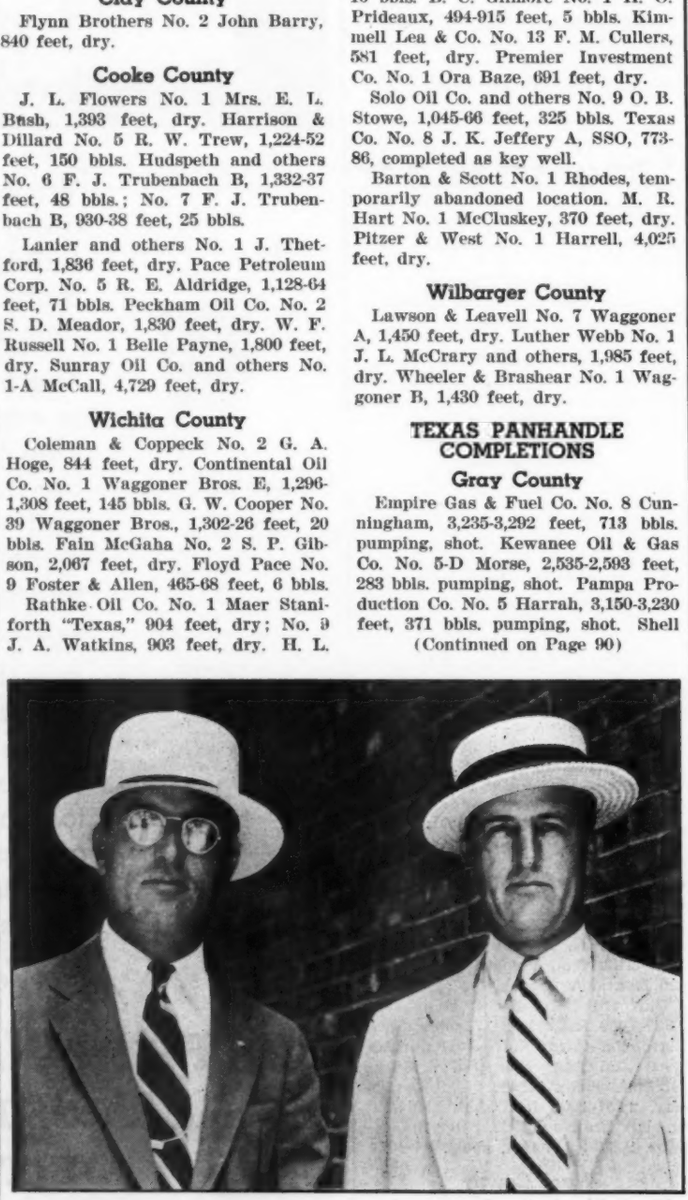
Lawson & Leavell No. 7 Waggoner A, 1,450 feet, dry. Luther Webb No. 1 J. L. McCrary and others, 1,985 feet, dry. Wheeler & Brashear No. 1 Waggoner B, 1,430 feet, dry.

TEXAS PANHANDLE COMPLETIONS

Gray County

Empire Gas & Fuel Co. No. 8 Cunningham, 3,235-3,292 feet, 713 bbls. pumping, shot. Kewanee Oil & Gas Co. No. 5-D Morse, 2,535-2,593 feet, 283 bbls. pumping, shot. Pampa Production Co. No. 5 Harrah, 3,150-3,230 feet, 371 bbls. pumping, shot. Shell

(Continued on Page 90)



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East and East Central Texas

By L. E. BREDBERG

TALCO TOWNSITE HAS FIRST WELL, GOOD FOR 240 BBLS.

DALLAS, Tex., June 15.—Two wells were added to the Talco Fault line field in northwest Titus and northeast Franklin County in the past week, the town of Talco getting its first producer. The well is the most northern test drilled in the field, cutting the fault low at 4,000 feet, but making 10 bbls. per hour from the Paluxy topped at 4,215 feet and the sand logged at 4,260 feet.

This well, Ownby Drilling Co. No. 1 Jones, in the center of Lot 6, Block 16, M. V. Delgado Survey, has an elevation of 361 feet. Casing was set at 4,340 feet. It will probably be placed on the pump. It is on the Titus County side of the line and about 2½ miles west of the discovery well.

Nemo Oil Co. (Sanders and Murchison) No. 1 Talco School Lot, a little over a quarter of a mile southwest of the discovery well, and just southeast of Talco Townsite, topped the sand at 4,185 feet and was bottomed at 4,340 feet making 5 bbls. of oil per hour. Elevation is 372 feet. This will probably be placed on the pump to accelerate production.

High Pecan Gap Chalk

Earl Bateman and others No. 1 Phillips, located in the William Birdwell Survey, 4 miles southwest of Talco, over in Franklin County, logged Pecan Gap Chalk at 1,342-1,430 feet, or between 200 and 250 feet higher than some of the producers in the Talco field. It had the base of the broken chalk at 1,580 feet. The test is drilling ahead below 3,250 feet and will be closely watched as it logs the deeper markers, Austin Chalk, Woodbine and Georgetown formations. It may prove the fault to swing to the southwest instead of running about due west as now geologized, and may prove a far-reaching extension to the field. Lucey Petroleum Co. No. 2 Crawford, in the Orlando James Survey, Franklin County, nearest producer to the Bateman test, logged the Pecan Gap chalk at 1,597-1,778 feet, showing the difference in depths logged between the two tests. The Lucey test will probably be completed next week as it is now testing after setting casing at 4,150 feet. It topped the Paluxy at 4,131 feet and the sand at 4,158 feet, and has proven another short northwest extension to the extended area in Franklin County, looking for about the same kind of a producer as the first well drilled on this lease by the company, which made around 62 bbls. per hour through 2½-inch tubing. Rig is to be skidded from the No. 2 location to a third location at once.

Another well due to be completed this week is Sutton & Hawkins No. 2 Kelly, southwest of the Humble Oil & Refining Co. No. 1 Galt, which is about 1 mile southeast of the discovery. The Kelly test cored 12 feet of saturated sand from 4,228-4,255 feet, but is to be carried about another 100 feet deeper before completing, according to the owners.

4 More Reported Locations

Four more locations were reported for the Talco pool. R. C. Horne made a location on the J. F. Barton Tract in the Delgado Survey, Humble Oil & Refining Co. and Morris made a location on the W. H. Hughes Tract in the same survey, and have rigged up; the Nivla Oil Co. is drilling around 500 feet on its W. H. Grey test in Lot 15, Block 17, Delgado Survey and the Magnolia Petroleum Co. and Humble Oil & Refining Co. are preparing to sink a jointly owned test on the Lucy Blackburn tract in the Ben Jones Survey, a west offset to Humble No. 2 Mary Groves producer, 2½ miles east of the discovery well. Stratton and others have a derrick up for a test on the J. F. Barton tract in the Delgado Survey.

Bill Stroube and associates are moving in for a test on the S. E. Strutton tract in the M.E.P.T. Survey, and will soon be under way in drilling. There are now nine producing wells in the field with around 25 tests drilling or preparing to drill. During the week 48 permits were issued by the Railroad Commission of Texas for tests to be drilled in the Talco field.

The Talco discovery well, Pleasant Oil Co. No. 1 Carr, in the Delgado Survey, mentioned last week as making salt water when deepened to 4,260 feet, has cemented packer in an effort to shut off the water, which was found to be coming from the Woodbine sand when deepening loosened the casing seat. It was formerly only a pumping well, but deepening converted it into a flowing well, with the salt water found to be only a bugaboo.

There is but little gas pressure in the wells completed in the Talco area, and unless new or extension wells find more gas, the field is destined to be an early pumping area. To prevent mudding up the formations and holding back the oil in the sands by drilling and completing in the conventional manner, by mud and water, some of the wells have and are either being completed with cable tools or oil is used in circulating.

Central West

Operations in Central Ohio, Kentucky, Illinois, Indiana

By GEORGE A. WHITNEY

FINDLAY, Ohio, June 11.—In Ashland County, Ohio, the Ohio Fuel Gas Co. No. 1 on the Leo Koons farm, Lot 51, Sullivan Township, is a gas well, in the Clinton lime at a total depth of 2,610 feet, and has a rock pressure of 980 pounds.

In Holmes County, the Ohio Fuel Gas Co. No. 1 J. Snively, section 7, Washington Township, was dry in the Clinton formation at a depth of 2,904 feet, and at a depth of 2,943 feet, showed a light gas production and was plugged. Same company's No. 1-6102 Hannah Tidball, section 19, same township, produced an initial of 2,030,000 feet of gas, at a total depth of 3,274 feet.

In Cuyahoga County, C. A. McMillen will abandon No. 1 on the Fuhrmeyer & Geisendorfer property, Lot 24, Independent Township. L. F. McGrath has a rig in for Bradford & Averill in the city of Cleveland. Schneider & Wyles is rigging for No. 1 on the Oxford Realty Co. land in section 4, Dover Township.

In Coshocton County, the Ohio Gas L. & C. is rigging up No. 4 Gottlieb Kuess farm, section 10, Mill Creek Township.

Bell Brothers No. 3 G. and M. Findley, section 13, Mechanic Township, Holmes County, is a gas well in the Berea sand at 812 feet.

In Richland County, Ohio Fuel Gas Co. No. 1 Mansfield Building & Loan Association land, section 5, Worthington Township, is a gas well in the Clinton lime at 2,436 feet. Same company has rigged No. 1 Carl B. Stanley, section 26, same township.

In Wyandot County, Roy C. Jones No. 1 R. E. Schindler, section 20, Crane Township, found no showing of oil or gas, and was abandoned in the Trenton lime at 1,514 feet.

In Putnam County, R. K. Rodgers No. 1 Shipe & Perry produced an initial of 25 bbls. of oil and some gas, and the owners are moving in for No. 2 on the same farm.

In Hardin County, the Forest Gas Co. No. 1 Thomas A. Jones, section 13, is drilling. Waltermire & Co. No. 1 J. H. Zigler, section 10, Pleasant Township, showed a slight pressure of gas in the Trenton limestone at a depth of 1,363 feet.

In Perry County, the Ohio Fuel Gas Co. No. 1 on the F. G. Rhoades farm, section 7, Clayton Township, was a gas well at a total depth of 3,224 feet, but after standing over night the hole filled with 1,200 feet of oil in the hole. In Pleasants Township, the Allegheny Oil Co. No. 12 on the Florence Monesel farm, section 32, produced an initial of 2 bbls. at a depth of 1,131 feet.

In Fairfield County, the City Natural Gas Works No. 2 on the Joseph F. Harshberger farm, section 27, Berne Township, is spudding.

In Hocking County, the City Natural Gas Works No. 1 on the Ellen Olive farm, section 6, Marion Township, was dry and abandoned at 2,580 feet. In Ward Township, same county, Murray City Oil & Gas Co. No. 11 on the W. W. Ackers & Co., showing both oil and gas at a depth of 3,599 feet.

In Pike County, the Dove Oil & Gas Co. No. 1 on the D. B. McGuire farm, section 1, Union Township, has a small gas showing.

Wildcatting

Abercrombie and Harrison No. 1 Southern Pine Lumber Co., in the D. A. Bruton Survey, 10 miles northeast of Clarksville, in Red River County, which attracted attention last week when it showed some oil on drill stem test, topped the Paluxy sand at 1,057-59 feet, the sand at 2,104-10 feet and showed 5 feet of oil sand recovered on drill stem test, but only a scum of oil with salt water and mud. In coring at 2,110-18 feet it got a hole full of salt water with no oil or gas in the Glen Rose section of the Trinity. Elevation is 407 feet. It is to be carried deeper. The Westmount Oil Co. No. 1 R. N. Phillips, located in the G. N. Hancock Survey, 10 miles north of Oak Grove, in Bowie County, an interesting test for the northeastern sector of the East Texas district, logged base of the Georgetown lime this week at 1,924 feet and topped the Paluxy here. It is now drilling ahead around 2,750 feet, and will be closely watched for oil showings in the Paluxy sand and also in the Glen Rose if carried into the deeper member of the Trinity. It centers a 12,000-acre block in the northwest quarter of the county, and in correlating the base of the Georgetown with the same important marker on a test drilled about 1¼ miles to the southeast four years ago, it is running around 100 feet higher.

which enhances its chances for making a good showing.

Deep Test Abandoned

Five miles south of Henderson in Rusk County, McCallum and others have abandoned their No. 1 E. C. Gary, in the John Piburn Survey. Elevation is 338 feet, and total depth of the test is 3,750 feet. It was the only deep wildcat abandoned in the district this week although a semi-wildcat 1 mile east of Roane, in Navarro County, was given up at 2,740 feet. Elevation is 423 feet. This test, drilled by E. A. Thommason on the Estes Brothers lands, was the second try for production in the area by the operator.

East Texas Field

As of the morning of June 12 there were 20,713 wells with a total hourly potential of 12,717,850 bbls. per day in the East Texas field. Daily production was 439,050 bbls., the daily average for the week running around 438,800 bbls. There are now 55 dead wells in the field.

There were 44 locations staked in the field this week.

EAST CENTRAL TEXAS COMPLETIONS

Anderson County

Tide Water & Seaboard Oil Co. No. 1 Fickens, total depth 5,292 feet, 130 bbls. in 24 hours through one-eighth inch choke.

Henderson County

Cortex Oil Co. No. 1 M. V. Wathen, total depth 4,097 feet, 156 bbls. in 24 hours through one-eighth inch choke.

Navarro County

E. A. Thommason No. 2 Estes Brothers, dry and abandoned 2,740 feet, elevation 423 feet, 1 mile east of Roane.

Rusk County

McCallum and others No. 1 Gary, dry and abandoned 3,750 feet, elevation 338 feet, 5 miles south of Henderson.

Titus County

Magnolia Petroleum Co. No. 1 J. M. Carr, top Paluxy 4,181 feet, oil sand 4,189-4,248 feet, 660 bbls. per day on pump.

Van Zandt County

Humble Oil & Refining Co. No. 18 Blake, total depth 2,897 feet, 422 bbls. in three hours through 15/16-inch choke.

Oklahoma Fields

(Continued from Page 77)

No. 1 Harjo, SE NE NE section 10-6-6, location; Magnolia Petroleum Co. No. 2 Dindy, SE SE NW section 11-7-6, old well plugging back; Oklahoma Oil Corp. No. 2 Coody, SW SW SE section 18-9-7, drilling at 125 feet; J. D. Campbell, NW NE NE section 17-9-7, building rig; Deep Rock Oil Corp. and others No. 4 Hocker, SW SE NE section 19-9-7, location; Carter Oil Co. and others No. 2 Harber, C E half SW SE section 1-10-6, building rig; J. F. Smith No. 1-A Wyant, NW SW SW section 29-10-6, cellar.

Okfuskee County

Manahan & Grisso No. 8 Dalton, NE NE SE section 36-10-8, in the Okfuskee County extension of the Olympic pool, topped Senora sand at 1,718 feet; total depth, 1,747 feet; was shot and flowed 360 bbls. in 24 hours, completed. Amerada Petroleum Corp. and Stanolind Oil & Gas Co. No. 1 Wells, SW SW NW section 7-11-7, wildcat, topped Wilcox sand at 4,454 feet; second sand, 4,488 feet, and was dry and abandoned at 4,503 feet, total depth.

The following new work was started in Okfuskee County: C. E. James and others No. 1 Richardson, SW cor. section 12-10-8, set 10-inch casing at 18 feet; Blackwell Oil & Gas Co. No. 2 Dalton, NE SE NE section 36-10-8, rig; same operators No. 1 Land, SW SE NW section 17-10-9, set 10-inch casing at 37 feet; Ark Royalty Co. No. 1 Creek Trading Co., NW NE NE section 19-10-9, location; Gulf Oil Corp. No. 1 Cohee, SW SW NW section 31-10-9, location.

Pottawatomie County

J. W. Fitzpatrick No. 1-A Cassey, SW NW SE NE section 23-11-6, the only new test starting in Pottawatomie County, had rig on the ground.

Lincoln County

Skelly Oil Co. was building rig for No. 1 Sporn, NW NE SW section 21-17-3e, wildcat in Lincoln County. Location is on a seismograph structure, on a leased block of about 2,000 acres.

Pawnee County

Chambers and others' No. 1 Bunch, SW SW NW section 4-20-9, in the Keystone area of Pawnee County, spudded and shut down.

Cleveland County

Sinclair Prairie Oil Co. and others No. 1 Franklin C-36, SE NW SE section 21-10-2w, discovery well in the Moore pool of Cleveland County, was officially completed at 7,318 feet, total depth, producing from second Wilcox sand. It flowed 4,244 bbls. of oil in three hours, with gas averaging 89,127,000 feet.

Atoka County

Riverland Oil & Gas Co. No. 1 Jones, SW SW NE section 4-3s-9, wildcat in Atoka County, encountered sulfur water and was dry and abandoned at 2,724 feet, total depth. Tops follow: Mayes, 1,190 feet: Woodford, 1,237 feet; Hunton, 1,517 feet; Sylvan, 1,573 feet; Viola, 1,762 feet; Bromide, 2,100 feet; McLish, 2,410 feet: Dense, 2,639 feet; Wilcox sand, 2,720 feet.

Creek County

El Dorado Oil & Gas Co. No. 1 Meyers, NW SE NE section 1-17-10, southeast of Sapulpa in Creek County, had sand at 545 to 560 feet and was completed at 568 feet, total depth. It produced 287,000 feet of gas. W. C. McBride, Inc., No. 1 Kirk, SE NE SE section 21-15-7, topped Wilcox sand at 2,983 feet and was dry and abandoned at 4,006 feet. Swift and others No. 2 Coonrod, SW SW NW section 3-19-9, was dry and abandoned in Layton sand at 1,283 to 1,317 feet.

New work in Creek County: Magnolia Petroleum Co. No. 11 Street, NE SW NE section 3-17-8, rigging up machine; El Dorado Oil & Gas Co. No. 2 Meyers, NE SW NE section 1-17-10, location.

Okmulgee County

Two failures were reported in Okmulgee County. Stekoll No. 11 Hawkins, NE NE SE section 6-11-12, was dry and abandoned at 1,735 feet, total depth. Wickes & Pollard No. 1 Miller, NW cor. section 23-14-12, was dry and abandoned in Booch sand at 1,736 to 1,748 feet.

Work was starting at the following Okmulgee County tests: Quinlan and others No. 1-A Adams, C SE NE section 8-14-12, location. Aggis Drilling Co. No. 5-A McKinney, NW NW SW section 16-15-14, location.

Johnston County

Shell Petroleum Corp. was moving in rig at No. 1 Illinois Bankers Life, SW SE NE section 10-2s-7, a test based on surface geology in Johnston County.

Rocky Mountain Fields

(Continued from Page 82)

Stanley Gray No. 1 Allotted-132, NW SE NW sec. 22-34n-7w. Drlg. 3,050 ft.

Petroleum County

H. C. Rowland No. 3 Govt., CEL NE SW sec. 18-17n-24e. Drlg. 920 ft.
West Dome Oil Co. No. 1, SW SE NE sec. 9-15-29e. Drlg. 1,293 ft.; first Cat Creek at 1,240-88 ft.; test 5 bbls.; cased off with 5 3/16-in. at 1,290 ft.

Judith Basin County

Fletcher E. Hunt No. 3, NW SE NE sec. 30-14n-15w. Drlg. 431 ft.

Pondera County

Warren Hastings No. 2 Erickson, NW SW NW section 10-27-4w, in the Pondera field, which had a show of oil at 1,990 feet, was acidized and responded by pumping 12½ bbls. in eight hours. It is a completion.

Wm. M. Fulton No. 1-A Price, SW NE NE sec. 18-27n-4w. Drlg. 1,380 ft.
Clinch Pet., Ltd., No. 1 Hollan, NW SW NW sec. 12-28-6w. Cmtd. cave at 2,000 ft.; W.O.C.
Warren Hastings No. 3 Erickson, NW SE SW sec. 10-27n-4w. Loc.
Texas Co. No. 1 Valier Unit No. 1, C NW SE sec. 32-31n-5w. Drlg. 2,735 ft.
Gordon Campbell No. 1 Hughes, NW NE NW sec. 12-30n-4w. Drlg. 1,440 ft.
Jones-Chambers No. 1 Erickson, SW SE SW sec. 3-27-4w. Bldg. drk.

Teton County

R. C. Tarrant No. 1 Wallenstein, NW NW SW sec. 9-27-5w. Drlg. 250 ft.; 10-in. at 195 ft.

Toole County

Four completions, of which one was a dry hole, and three new operations were reported in the Kevin-Sunburst field. The Superior Oil Co. No. 4 Haugen, SW SE NE section 11-35-3w, was plugged and abandoned at 1,810 feet. It had the Ellis-Madison at 1,801-06 feet.

The Imperial-Craig Oil Co. No. 17 Bluhm, CWL NE NE section 19-35-1w, pumped 3 bbls. daily from the Ellis-Madison at 1,596-1,635 feet, and its No. 18 Bluhm, NW NE NE section 19-35-1w, pumped 3 bbls. from the Ellis-Madison at 1,596-1,643 feet.

Crumley & Son No. 4 Fryberger, SE NW SE section 24-35-3w, is pumping 20 bbls. daily from the Ellis-Madison at 1,600-05 feet.

Alexander-Sorrell No. 1 Strange, NE NE SE sec. 31-35n-3w. Spdg.
Big West Oil Co. No. 2 Dalquist, NW NE NW sec. 21-35n-3w. Drlg. 1,150 ft.
A. E. Crumley No. 9 Shaw, SE SW NE sec. 35-36n-2w. T.D. 1,025 ft.; rng. 6¼-in.
Agen & Goeddertz No. 1 Goeddertz, C SE NE sec. 16-35n-3w. Drlg. 1,460 ft.; gas in Sunburst at 1,390-1,403 ft.
Big West Oil Co No 1 Dalquist, SW NE NW sec. 21-35n-3w. Drlg. 1,705 ft. in sd.
Carscallen & Mitchner No. 1 Krueger, 1,320 ft. W of E line, 1,980 ft. S of N line, sec. 10-34n-2w. T.D. 1,650 ft.; acidized; did not recover load.
Coolidge & Coolidge No. 2 State, NE NW NW sec. 36-36n-2w. T.D. 1,060 ft.; rng. 8¼-in.
Coolidge & Coolidge No. 1 Hanlon, SW SW SE sec. 26-36n-2w. R.U.
Coolidge & Coolidge No. 2 Shaw, SE SE SE sec. 26-36n-2w. Drlg. 1,358 ft.
Continental Oil Co. No. 7 State, SE NE NE sec. 16-35n-2w. T.D. 1,538 ft.; 5 3/16-in. cmtd.; W.O.C.
Continental Oil Co. No. 9 State, SE SW NE sec. 16-35-2w. Spdg. 30 ft.
Fraser & Smith No. 1 Crabtree, NE NE SE sec. 14-34n-2w. T.D. 1,390 ft.; Ellis-Madison 1,374 ft.; acidizing.
T. P. Kyle No. 1 Wolnsti, CSL SE SE sec. 3-33n-1w. Drlg. 850 ft.
Wm. McKnight No. 3 Seabrook, NE NW SW sec. 19-35-2w. Drlg. 200 ft.; (first report).
Monopeg Oils, Ltd., No. 3 Dipple, CSL SW NW sec. 28-35n-1w. T.D. 1,460 ft.; R.U. to drill in.
Munger No. 1 Peterson, NW NW SW sec. 8-35n-2w. T.D. 1,200 ft.; fsg.
C. T. Olen No. 6 Engemoen, SE SW NW sec. 14-35n-2w. Drlg. 625 ft.
E. O. Reickoff No. 2 Govt., SW SW NE sec. 3-35n-3w. T.D. 1,630 ft.; rng. 5 3/16-in.
Burt Smith No. 1 Haugen, SE SE NW sec. 2-35n-3w. T.D. 1,800 ft.; cmtg. 6¼-in.
Welch Bros. No. 1 Dewald, SW NE NE sec. 26-36n-2w. T.D. 1,787 ft.; fsg.
Watson No. 1 Leach, SE SE NE sec. 31-35n-3w. Drlg. 1,175 ft.
Superior Oil Co. No. 5 Haugen, SE SE NE sec. 11-35n-3w. R.U. (first report).
Nepstead & Vanderpas No. 1 Solberg, NE NW SE sec. 20-35n-3w. Drlg. 1,110 ft.
R. C. White No. 2 Haugen, CNL NE SE sec. 11-35n-3w. R.U.

UTAH

Grand County

Columbia Crude Co. No. 1 Rath, SW SE sec. 12-35n-20e. Drlg. 786 ft.
Utah Southern Oil Co. No. 1 Hyde, SE NW NW sec. 33-22e. S.D. 4,880 ft. to resurvey; went through 2,400 ft. of Permian, Rico and Cutler beds.
Glenn Ruby et al No. 1 State, NE SE SE sec. 34-31s-16e. Drlg. 2,300 ft. in Moenkopi.

Utah County

Diamond Oil Co. No. 4 Govt., CSL SE NW sec. 10-8s-5e. S.D. 3,956 ft. in petroleum residue substance.

Summit County

Longwell Pet. Co. No. 1, SE SW SE sec. 35-3n-5e. Drlg. 1,240 ft.

Washington County

Arrowhead Pet. Corp. No. 1-A, SE SW NE sec. 1-43s-15w. T.D. 2,475 ft.; sidetracking tools; good O.S.

La.-Ark. Fields

(Continued from Page 79)

bbls. per hour, after an acid charge of 2,000 gallons was applied. Total depth is 2,406 feet in chalky lime, topped at 2,382 feet, which is thought to be a member of the Woodbine series.

This well is located about 16 miles northwest of Shreveport, and one-half mile west of the Louisiana state line. It was originally scheduled for a deep test upon a large block covering what is known as the Latex high, but operators now plan to complete their well in its present horizon. Whether or not another attempt will be made to test the deeper zone is not yet known.

West Texas Fields

(Continued from Page 88)

Petroleum Corp. No. 1-A Goethings, 2,635-2,742 feet, 355 bbls. pumping.

Hutchinson County

Gulf Oil Corp. No. 58 C. L. Dial, 2,950-3,039 feet, 122 bbls. pumping, shot. Huber Petroleum Co. No. 2 Sanford, 2,325-2,675 feet, 25,732,000 feet of gas. Texas Co. No. 11 Lewis, 2,960-2,980 feet, 325 bbls. pumping.

Wheeler County

Barnett and others No. 2 Stewart, 2,120-2,132 feet, 260 bbls. oil and 5,000,000 feet of gas. Skelly Oil Co. No. 18 Johnson, 2,475-2,531 feet, 189 bbls. pumping.

Drilling Contractors

(Continued from Page 69)

prospect in Hardin County, to the Picketts Ridge field, Wharton County. Smith & McDannald have completed moving in and setting up a rig for a deep wildcat for Tide Water Oil Co. in Orange County. W. Claude Smith has just completed a well for Texas Co. at Tomball, and is nearing the pay in a well for the same company at Picketts Ridge. W. V. Bowles has two rigs for the same company at Manvel.

WILDCAT OPERATIONS

CALIFORNIA

IMPORTANT WELLS AND NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Shell Oil Co., No. 13 Capitan, Santa Barbara Co.	32- 5-30	2,853	flow. 106 b.d.
Shell Oil Co., No. 15 Capitan, Santa Barbara Co.	32- 5-30	1,536	cmtd. 1,385
La Canada Oil Co., No. 1 Capitan, Santa Barbara Co.	35- 5-30	321	sd. sh. drlg.
Barnsdall-Rio Grande, No. 12 Elwood, Santa Barbara	15- 4-29	6,856	P.B. 6,363
Barnsdall-Rio Grande, No. 8A-88 Elwood, S. Barbara	tideland	3,375	will deepen
Spalding, Caroline, No. 5 Elwood, Santa Barbara Co.	tideland	3,700	O.S. drlg.
Union Oil Co., No. 6 Santa Maria, Santa Barbara Co.	24-10-34	1,164	sd. sh. drlg.
Union Oil Co., No. 16 Orcutt, Santa Barbara Co.	26- 9-34	3,743	cmtd. 3,710
Moore, Inc., No. 1 Santa Maria, Santa Barbara Co.	25-10-35	3,167	sd. sh. drlg.
Bankline Oil Co., No. 1 Coal Oil Pt., Santa Barbara Co.	tideland	5,510	redrlg. 1,451
Calco Pet. Co., No. 1 Las Posas, Ventura Co.	17- 3-20	3,497	br. sh. drlg.
Pet. Securities Co., No. 1 Bardsdale, Ventura Co.	7- 3-19	5,482	sd. sh. drlg.
Duke Oil Co., No. 1 Bardsdale, Ventura Co.	7- 3-19	5,431	gr. sd. drlg.
Calkan Pet. Co., No. 1 Sespe, Ventura Co.	23- 5-20	576	cleaning out
Condor Oil Co., No. 1 Sespe, Ventura Co.	6- 4-19	1,264	hd. sh. drlg.
Topa Topa Oil Co., No. 1 Sespe, Ventura Co.	33- 5-19	1,810	hd. sd. drlg.
Wasibi Oil Co., No. 1 Sespe, Ventura Co.	33- 5-19	201	cleaning out
Laing & Jacobs, No. 1 Shiells Canyon, Ventura Co.	32- 4-19	1,275	fish. D.P.
Bestco Pet. Co., No. 1 Shiells Canyon, Ventura Co.	2- 3-19	3,990	form. test
Bankline Oil Co., No. 1 Shiells Canyon, Ventura Co.	3- 3-19	4,617	cleaning out
Petroleum Securities, No. 1 Shiells Canyon, Ventura	3- 3-19	3,587	cmtd. 3,489
The Texas Co., No. 129 Shiells Canyon, Ventura Co.	4- 3-19	4,812	P.B. 4,260
The Texas Co., No. 130 Shiells Canyon, Ventura Co.	4- 3-19	3,206	form. test
The Texas Co., No. 131 Shiells Canyon, Ventura Co.	4- 3-19	2,842	sd. sh. drlg.
El Rancho Oil Co., No. 1 Shiells Canyon, Ventura Co.	9- 3-19	4,041	will deepen
Hull, James, No. 1 Santa Susana, Ventura Co.	2- 2-18	1,791	recmtd. 500
Bolsa Chica Oil Co., No. 3 Temescal, Ventura Co.	4- 4-18	2,700	br. sh. drlg.
Bolsa Chica Oil Co., No. 4 Temescal, Ventura Co.	4- 4-18	799	hd. sh. drlg.
Ventura Expl. Co., No. 1 Saticoy, Ventura Co.	30- 3-22	7,073	cleaning out
General Pet. Corp., No. 2 Oxnard, Ventura Co.	26- 2-23	7,487	sd. sh. drlg.
Continental Oil Co., No. 5 San Miguelito, Ventura Co.	24- 3-24	5,541	sd. sh. drlg.
C. C. M. Oil Co., No. 1 Javon, Ventura Co.	15- 3-24	3,552	sd. sh. drlg.
Continental Oil Co., No. 2 Pirie, Ventura Co.	13- 4-23	1,223	reaming
Standard Oil Co., No. 1 Lost Hills, Kern Co.	2-26-20	6,487	fish. D.P.
Associated Oil Co., No. 2 Lost Hills, Kern Co.	2-26-20	1,146	prod. test
East Puente Oil Co., No. 21 McKittrick, Kern Co.	11-30-21	910	cmtd.
Calcrude Pet. Co., No. 1 McKittrick, Kern Co.	34-30-22	1,504	prod. test
Welport Oil Co., No. 14 McKittrick, Kern Co.	26-29-21	1,572	blow. gas
Bergman, H. L., No. 1 McKittrick, Kern Co.	30-30-22	955	sd. sh. drlg.
General Pet. Co., No. 1 South Belridge, Kern Co.	30-28-21	11,377	suspended
Standard Oil Co., No. 4 North Belridge, Kern Co.	36-27-20	7,897	sd. sh. drlg.
Associated Oil Co., No. 5 North Belridge, Kern Co.	34-27-20	6,320	hd. sh. drlg.
Belridge Oil Co., No. 18-35 North Belridge, Kern Co.	35-27-20	7,161	sd. sh. drlg.
Belridge Oil Co., No. 17-35 North Belridge, Kern Co.	35-27-20	7,896	sd. sh. drlg.
Union Oil Co., No. 20 North Belridge, Kern Co.	36-27-20	9,684	br. sh. drlg.
Union Oil Co., No. 21 North Belridge, Kern Co.	36-27-20	7,597	br. sh. drlg.
C. C. M. Oil Co., No. 18 Kern Front, Kern Co.	23-28-27	2,260	sd. sh. drlg.
Republic Pet. Co., No. 11 Kern Front, Kern Co.	11-28-27	1,952	rig. to pump
Republic Pet. Co., No. 13 Kern Front, Kern Co.	12-28-27	1,839	dry; abd.
Seven Spot Oil Co., No. 1 Kern Front, Kern Co.	13-28-27	730	sd. sh. drlg.
Vega Oil Co., No. 1 Kern Front, Kern Co.	11-28-27	1,755	P.B. 1,700
National Oil Co., No. 5 Kern Front, Kern Co.	1-28-27	2,000	suspended
National Oil Co., No. 6 Kern Front, Kern Co.	11-28-27	1,902	cmtd. 1,773
General Pet. Corp., No. 6 Kern Front, Kern Co.	14-28-27	1,937	cmtd. 1,660
Standard Oil Co., No. 14 Kern Front, Kern Co.	15-28-27	2,175	pump. 130 b.d.
Union Oil Co., No. 8 Kern Front, Kern Co.	11-28-27	1,692	pump. 65 b.d.
American Expl. Co., No. 1 Kern Front, Kern Co.	16-28-27	2,862	cmtd.
Ausbrit Oil Co., No. 1 Premier, Kern Co.	20-27-27	2,139	P.B. 2,075
Poso Pet. Co., No. 1 Premier, Kern Co.	2-27-27	2,004	suspended
Union Oil Co., No. 1 Premier, Kern Co.	8-27-27	2,064	dry; abd.
Santa Carla Oil Co., No. 1 Dominion, Kern Co.	19-26-28	1,000	sd. sh. drlg.
Cal-Coast Apex Oil Co., No. 1 Mount Poso, Kern Co.	36-26-27	1,550	cleaning out
General Pet. Corp., No. 13 Mount Poso, Kern Co.	16-27-28	1,583	pump. 120 b.d.
General Pet. Corp., No. 30 Mount Poso, Kern Co.	16-27-28	1,577	will cmt.
Bargol Oil Co., No. 1 Mount Poso, Kern Co.	11-27-27	2,110	sd. sh. drlg.
Tilton & Harp, No. 1 Mount Poso, Kern Co.	6-27-28	2,240	sd. sh. drlg.
Lytle, R. S., No. 1 Mount Poso, Kern Co.	26-27-28	1,421	prod. test
McAdams, E., No. 1 Mount Poso, Kern Co.	32-27-28	....	material
Dixie Lee Oil Co., No. 4 Fruitvale, Kern Co.	23-29-27	984	sd. sh. drlg.
Mosebach Oil Co., No. 1 Fruitvale, Kern Co.	21-29-27	4,121	hd. sh. drlg.
Trico Oil & Gas Co., No. 1 Fruitvale, Kern Co.	23-29-27	3,472	P.B. 3,220
H. L. J. Oil Co., No. 1 Fruitvale, Kern Co.	23-29-27	3,212	cmtd. 3,190
Western Gulf Oil Co., No. 24 Fruitvale, Kern Co.	22-29-27	3,274	sd. sh. drlg.
Western Gulf Oil Co., No. 26 Fruitvale, Kern Co.	27-29-27	1,166	sd. sh. drlg.
Mohawk Oil Co., No. 16 Fruitvale, Kern Co.	26-29-27	....	rigging up
Nydia Pet. Co., No. 1 Fruitvale, Kern Co.	26-29-27	3,420	sd. sh. drlg.
Hogan Pet. Co., No. 15 Mountain View, Kern Co.	4-31-29	5,177	sd. sh. drlg.
Hogan Pet. Co., No. 16 Mountain View, Kern Co.	32-30-29	2,851	sd. sh. drlg.
Buffalo Oil Co., No. 3 Mountain View, Kern Co.	19-30-29	3,870	sd. sh. drlg.
Petrol Prod. Co., No. 1 Mountain View, Kern Co.	32-30-29	3,991	sd. sh. drlg.
Mohawk Oil Co., No. 16 Mountain View, Kern Co.	30-30-29	6,074	flow. 296 b.d.
Mohawk Oil Co., No. 18 Mountain View, Kern Co.	30-30-29	5,985	pump. 60 b.d.
Treasure Oil Co., No. 1 Mountain View, Kern Co.	12-30-28	5,072	sd. sh. drlg.
Jergins Trust, No. 8 Mountain View, Kern Co.	19-30-29	5,241	bailing
Shell Oil Co., No. 10 Mountain View, Kern Co.	32-30-29	6,050	cleaning out
Shell Oil Co., No. 11 Mountain View, Kern Co.	32-30-29	4,672	redrlg. 3,160
Vesta Pet. Co., No. 10 Mountain View, Kern Co.	19-30-29	4,397	sd. sh. drlg.
Mohawk Pet. Co., No. 1 Arvin, Kern Co.	10-31-29	3,754	sd. sh. drlg.
R. & R. Dev. Co., No. 3 Arvin, Kern Co.	32-30-30	552	sd. sh. drlg.
Ohio Oil Co., No. 1 Rio Bravo, Kern Co.	1-30-25	8,202	sd. sh. drlg.
Round Mountain Oil Co., No. 2 Round Mountain, Kern	19-28-29	1,913	will P.B.
Barnsdall Oil Co., No. 6 Round Mountain, Kern Co.	7-28-29	1,652	sd. sh. drlg.
Shell Oil Co., No. 6 Round Mountain, Kern Co.	7-28-29	1,594	redrlg. 1,561
Shell Oil Co., No. 13 Round Mountain, Kern Co.	7-28-29	1,187	sd. sh. drlg.
Shell Oil Co., No. 14 Round Mountain, Kern Co.	7-28-29	1,860	cmtd. 1,857
Honoluiu Oil Corp., No. 19 Round Mountain, Kern Co.	20-28-29	1,903	pump. 358 b.d.
Honoluiu Oil Corp., No. 20 Round Mountain, Kern Co.	18-28-29	2,095	sd. sh. drlg.
Benito Huntington Oil Co., No. 1 Rd. Mountain, Kern.	8-28-29	1,900	O.S. drlg.
Jergins Trust, No. 20 Edison, Kern Co.	13-30-29	1,560	pump. 260 b.d.
Jergins Trust, No. 24 Edison, Kern Co.	23-30-29	1,690	cmtd. 1,300
Jergins Trust, No. 25 Edison, Kern Co.	14-30-29	2,375	sd. sh. drlg.
Buffalo Oil Co., No. 2 Edison, Kern Co.	24-30-29	928	cleaning out
Wood-Callahan Oil Co., No. 1 Edison, Kern Co.	21-30-29	3,186	cmtd. 2,925
Wood-Callahan Oil Co., No. 2 Edison, Kern Co.	23-30-29	1,274	sd. sh. drlg.
Higgins, W. F., No. 1 Edison, Kern Co.	17-30-29	3,198	sd. sh. drlg.
M. & L. Oil Co., No. 1 Edison, Kern Co.	23-30-29	1,398	sd. sh. drlg.
General Pet., No. 18 Edison, Kern Co.	11-30-29	....	rig
The Texas Co., No. 8 Edison, Kern Co.	23-30-29	2,115	pump. 160 b.d.
Pioneer Holding Co., No. 2 Edison, Kern Co.	17-30-30	1,998	gr. sd. drlg.
Bender, E. A., No. 1 San Emidio, Kern Co.	14-10-23	560	sd. sh. drlg.
Seaboard Oil Corp., No. 3 Buttonwillow, Kern Co.	8-28-23	3,476	sd. sh. drlg.
Evans, H. B., No. 11 Midway-Sunset, Kern Co.	35-32-23	650	sd. sh. drlg.
Chief Oil Co., No. 3 Midway-Sunset, Kern Co.	6-11-23	2,700	sd. sh. drlg.
General Pet. Corp., No. 2 Midway-Sunset, Kern Co.	6-11-23	2,802	flow. 40 b.d.
General Pet. Corp., No. 15-B Midway-Sunset, Kern Co.	6-11-23	1,877	sd. sh. drlg.
Hoyt, Otis, No. 1 Midway-Sunset, Kern Co.	7-11-23	1,617	pump. 40 b.d.
Bankline Oil Co., No. 1 Midway-Sunset, Kern Co.	6-11-23	3,010	br. sh. drlg.
Standard Oil Co., No. 25 Midway-Sunset, Kern Co.	36-12-24	2,896	cmtd. 2,525
Standard Oil Co., No. 30 Midway-Sunset, Kern Co.	31-12-23	3,529	pump. 25 b.d.
South Cerritos Oil Co., No. 1 Midway-Sunset, Kern Co.	23-32-23	1,131	sd. sh. drlg.
Alford Oil Co., No. 5 Midway-Sunset, Kern Co.	4-32-23	3,358	cleaning out
Burkeholder Oil Corp., No. 1 Midway-Sunset, Kern Co.	23-32-23	1,476	sd. sh. drlg.
The Texas Co., No. 15 Midway-Sunset, Kern Co.	32-32-24	2,076	sd. sh. drlg.
Obispo Oil Co., No. 12 Midway-Sunset, Kern Co.	32-12-23	3,194	br. sh. drlg.
Jerman, R. W., No. 1 Midway-Sunset, Kern Co.	31-12-23	3,380	P.B. 2,780
Ohio Oil Co., No. 7 Buena Vista Lake, Kern Co.	5-32-26	4,217	5,000 m.c.f.
Ohio Oil Co., No. 1 Tejon, Kern Co.	36-11-19	3,074	sd. sh. drlg.
Reserve Oil & Gas Co., No. 1 Tejon, Kern Co.	33-11-19	4,805	cleaning out
Tejon Ridge Oil Co., No. 1 Comanche, Kern Co.	23-32-29	2,397	cleaning out
Western Gulf, No. 3 Cantua, Fresno Co.	3-17-15	6,190	hd. sd. drlg.
Conlon, J. M., No. 1 Coalinga, Fresno Co.	30-19-15	1,120	sd. sh. drlg.
Union Oil Co., No. 1 Lillis-Welsh, Fresno Co.	24-21-16	11,127	P.B. 10,729
K. N. D. A., No. 2 Kettleman North, Fresno Co.	20-21-17	8,340	hd. sh. drlg.
K. N. D. A., No. 38 Kettleman North, Fresno Co.	18-21-17	7,000	sd. sh. drlg.
K. N. D. A., No. 43 Kettleman North, Fresno Co.	30-21-17	1,960	sd. sh. drlg.
K. N. D. A., No. 74 Kettleman North, Fresno Co.	30-21-17	7,861	sd. sh. drlg.
K. N. D. A., No. 81 Kettleman North, Fresno Co.	24-21-16	6,386	sd. sh. drlg.
K. N. D. A., No. 36 Kettleman North, Kings Co.	36-22-18	9,733	P.B. 8,065
Standard Oil Co., No. 25 Kettleman North, Fresno Co.	19-21-17	7,525	br. sh. drlg.
Standard Oil Co., No. 43 Kettleman North, Fresno Co.	19-21-17	7,108	sd. sh. drlg.
Standard Oil Co., No. 56 Kettleman North, Fresno Co.	19-21-17	7,371	br. sh. drlg.
Standard Oil Co., No. 65 Kettleman North, Fresno Co.	19-21-17	7,920	cmtd. 7,915
Standard Oil Co., No. 72 Kettleman North, Fresno Co.	19-21-17	8,173	hd. sd. drlg.
Standard Oil Co., No. 3 Kettleman Middle, Kings Co.	19-23-19	....	rig
Kettleman View Oil Co., well No. 1, Kings Co.	29-22-19	1,629	will P.B.
Hurndall, John, No. 1 Pyramid Hills, Kings Co.	16-24-18	4,201	P.B. 1,981
Commonwealth Consd. Gas Co., No. 2 Tulare Lake, Kings.	21-22-20	2,495	hd. sh. drlg.
United Oil Co., No. 1 Panorama, San Luis Obispo Co.	2-32-21	760	hd. sd. drlg.
Taft Well Drlg. Co., No. 1 Pismo, San Luis Obispo Co.	31-31-13	3,700	br. sh. drlg.
Martin, J. D., No. 4 Pismo, San Luis Obispo Co.	5-32-13	2,236	sd. sh. drlg.
Martin, J. D., No. 5 Pismo, San Luis Obispo Co.	5-32-13	1,996	sd. sh. drlg.
Birch-Royer Oil Co., No. 1 Pismo, San Luis Obispo Co.	33-31-13	1,850	redrlg. 1,464
Barnsdall Oil Co., No. 1 Carissa Plains, S. Luis Obispo	24-28-17	3,559	redrlg. 3,483
Burch, I. L., No. 1 Cuyama, San Luis Obispo Co.	4-10-36	275	sd. sh. drlg.
Standard Oil Co., No. 1 McDonald Island, San Joaquin	25- 2- 4	5,227	new gas field
Pure Oil Co., No. 3 Chowchilla, Madera Co.	17-10-14	2,709	10,000 m.c.f.
Northern Counties Pet., No. 1 Tehama, Tehama Co.	25-24- 3	7,997	hd. sh. drlg.
Shell Oil Co., No. 1 Branch, Monterey Co.	34-24-10	8,994	P.B. 8,747
The Texas Co., No. 2 Eureka, Humboldt Co.	22- 3- 1	4,357	mill 4,149

KEY TO ABBREVIATIONS USED IN DRILLING REPORTS

Abd., abandoned.
Bldg., building.
B.D., barrels daily.
B.P., back pressure.
B.R., building rig.
Br. sh., brown shale.
B.S., basic sediment.
C.P., casing pressure.
Cd. or Crd., cored.
C.D., corrected depth.
Cg., coring.
C.L., center line.
Cmtd., cemented.
C.O., cleaning out.
Comp., completed.
Compr., compressor.
C.P., casing pressure, also cement through perforations.
Csg., casing.
D.D., drilling (or drilled) deeper.
Drlg., or Drg., drilling.
Drk. or Dk., derrick.
D.S., drill stem.
D.&A., dry and abandoned.
Fsg., fishing.
Gbo., gumbo.
G.I., gas injection.
Gr., gravity.
Gr. sd., gray sand.
Grn. sh., green shale.
Hd. sd., hard sand.
H.F.W., hole full of water.
I.P., initial production.
L., lime.
L.D.D., later drilled deeper.
Lnr., liner.
Loc., location.
M.I.M., moving in material.
M.I.R., moving in rig.
M.I.R.T., moving in rotary tools.
M.O.T., milling on tools.
O.I.H., oil in hole.
O.S., oil sand.
O.T.D., old total depth.
O.W.D.D., old well drilling deeper.
O.W.P.B., old well plugging back.
P.B., plugging or plugged back.
P.B.P., pulling big pipe.
P.L., pipe line.
P.L.O., pipe line oil.
Pmpg., pumping.
P.O.P., putting on pump.
P.P., pulled pipe.
Rd. sd., red sand.
Rd. sh., red shale.
Recmt., recemented.
Rmg., reaming.
Redrlg., redrilling.
Rng., running.
R.O.G., rig on ground.
R.P., rock pressure.
R.U., rigging up.
R.U.R., rigging up rotary.
R.U.R.T., rigging up rotary tools.
R.U.S.T., rigging up standard tools.
R.&T., rods and tubing.
S. or Sd., sand.
S.D., shut down.
Sd. sh., sandy shale.
Sdtr. or St., sidetracking.
S.D.P.L., shut down for pipe line.
S.D.W.O., shut down awaiting orders.
S.G., show gas.
Sh.&L., shale and lime.
S.I., shut in.
S.I.P., shut in, prorated.
S.L.M., steel line measurement.
S.O., show oil.
S.O.G.&W., show of oil, gas and water.
Spdg. or Spd., spudding.
S.R., straightreaming.
Stdg., standardising (also standing).
S.W., salt water.
Swbg., swabbing.
T.A., temporarily abandoned.
Tbg., tubing.
T.D., total depth.
T.P., tubing pressure.
Tr., tract.
U.R., underreaming.
W.I.H., water in hole.
W.O., workover.
W.O.C. or W.O.C.S., waiting on cement to set.
W.P., working pressure.
W.S.O., water shutoff.
W.S.O.O.K., water shutoff O.K.
W.S.O.N.G., water shutoff no good.
W.S.R. or W.O.S.R., wait on standard rig.
Wtr., water.

Amerada Pet. Co., No. 1 Rio Vista, Solano Co.	26- 4- 2	4,417	18,000 m.c.f.
Fortine, W. H., No. 1 Terra Bella, Tulare Co.	22-22-26	701	sd. sh. drlg.

IMPORTANT WELLS AND SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Marvin, J. L., No. 1 El Segundo, Los Angeles Co.	7- 3-14	7,521	P.B. 7,500
Ohio Oil Co., No. 1 El Segundo, Los Angeles Co.	7- 3-14	4,581	sd. sh. drlg.
Signal Finance, No. 1 Hawthorne, Los Angeles Co.	10- 3-14	3,841	cleaning out
Brown, R. A., No. 1 Torrance, Los Angeles Co.	31- 3-14	3,260	sd. sh. drlg.
White Five Oil Co., No. 1 Torrance, Los Angeles Co. .	31- 3-14	3,885	P.B. 3,500
Pongratz Oil Co., No. 1 Torrance, Los Angeles Co. ...	31- 3-14	3,340	sd. sh. drlg.
Regent Oil Co., No. 1 Torrance, Los Angeles Co.	6- 4-14	3,540	O.S. drlg.
Sterling Oil Co., No. 1 Torrance, Los Angeles Co.	31- 3-14	4,200	redrlg. 3,371
Sterling Oil Co., No. 2 Torrance, Los Angeles Co.	31- 3-14	3,590	O.S. drlg.
Dumas-Lewis Oil Co., No. 2 Torrance, Los Angeles Co.	6- 4-14	3,360	sd. sh. drlg.
B. & N. Oil Co., No. 1 Torrance, Los Angeles Co.	18- 4-14	3,427	bailing
Lawler Pet. Co., No. 1 Torrance, Los Angeles Co.	31- 3-14	3,525	pump. 234 b.d.
Macvan Oil Co., No. 1 Torrance, Los Angeles Co.	31- 3-14	3,741	P.B. 3,160
Continental Royalties, No. 1 Torrance, Los Angeles Co.	6- 4-14	1,521	sd. sh. drlg.
Rennek Oil & Gas Co., No. 1 Torrance, Los Angeles Co.	5- 4-14	3,448	cleaning out
Rennek Oil & Gas Co., No. 2 Torrance, Los Angeles Co.	5- 4-14	730	sd. sh. drlg.
C. C. M. Oil Co., No. 23 Torrance, Los Angeles Co. ...	8- 4-14	4,887	tested wet
Silver Pet. Co., No. 1 Inglewood, Los Angeles Co.	16- 2-14	1,962	sd. sh. drlg.
West American Oil Co., No. 1 Dominguez, Los Angeles	3- 4-13	8,700	sd .sh. drlg.
Union Oil Co., No. 8 Domingues Carson, Los Angeles	33- 3-13	7,097	sd. sh. drlg.
Union Oil Co., No. 44 Dominguez Callender, L. Angeles	33- 3-13	8,103	cleaning out
Barnsdall Oil Co., No. 15 Rosecrans, Los Angeles Co..	18- 3-13	5,682	will cmt.
Republic Pet. Co., No. 1 Rosecrans, Los Angeles Co. ..	18- 3-13	2,961	sd. sh. drlg.
Mars Oil Co., No. 1 Athens, Los Angeles Co.	7- 3-13	3,968	cleaning out
Associated Oil Co., No. 18 Seal Beach, Los Angeles Co.	11- 5-12	6,212	cmtd. 6,155
Continental Oil Co., No. 39 Seal Beach, Los Angeles	3- 5-12	4,632	sd. sh. drlg.
Standard Oil Co., No. 27 Seal Beach, Los Angeles Co..	3- 5-12	6,550	sd. sh. drlg.
Placentia Dev. Co., No. 1 Placentia, Los Angeles Co..	31- 3- 9	4,520	resume work
Eastern Oil Co., No. 1 Del Rey, Los Angeles Co.	22- 2-15	7,420	cleaning out
Yant Pet. Corp., No. 1 Newhall, Los Angeles Co.	1- 3-16	2,024	cleaning out
Harbor Pet. Co., No. 1 Wilmington, Los Angeles Co. ..	28- 4-13	3,584	cleaning out
Hull, James, No. 1 Wilmington, Los Angeles Co.	20- 4-13	2,171	sd. sh. drlg.
Codri Oil Co., No. 1 Wilmington, Los Angeles Co.	29- 4-13	3,901	cmtd. 3,861
General Pet. Corp., No. 1 Wilmington, Los Angeles Co.	4- 5-13	2,694	cleaning out
Monarch Oil Corp., No. 1 Topango Canyon, Los Angeles	5- 1-16	1,530	sd. sh. drlg.
Standard Oil Co., No. 82 Montebello, Los Angeles Co..	2- 2-12	8,250	hd. sh. drlg.
Standard Oil Co., No. 85 Montebello, Los Angeles Co..	2- 2-12	2,160	sd. sh. drlg.
Richfield Oil Co., No. 1 Montebello, Los Angeles Co..	5- 2-11	6,301	sd. sh. drlg.
Richfield Oil Co., No. 2 Montebello, Los Angeles Co..	5- 2-11	5,530	prod. test
North American, No. 2 Montebello, Los Angeles Co. ..	5- 2-11	6,100	sd. sh. drlg.
St. Helens Pet. Co., No. 7 Montebello, Los Angeles Co.	5- 2-11	5,760	sd. sh. drlg.
Keystone Oil Co., No. 1 Pico, Los Angeles Co.	9- 2-11	4,332	form. test
Bernstein, M. E., No. 1 Artesia, Los Angeles Co.	25- 3-12	5,588	redrlg. 4,000
McVicar & Rood, No. 1 San Jose Hills, Los Angeles Co.	6- 2- 9	2,110	sd. sh. drlg.
Great Coastal Oil Co., No. 1 Elsinore, Riverside Co. ..	36- 5- 5	2,510	hd. sd. drlg.
Commander Oil Co., No. 1 Newport, Orange Co.	29- 6-10	2,130	bail. sand
Terry, George, No. 1 Westminister, Orange Co.	17- 5-11	5,075	sd. sh. drlg.
Hillman & Long, No. 1 Westminister, Orange Co.	14- 5-11	7,701	cmtd. 5,557
B. A. L. Oil Co., No. 1 Huntington, Orange Co.	36- 5-11	2,287	suspended
West American Oil Co., No. 1 East Coyote, Orange Co.	24- 3-10	2,571	sd. sh. drlg.
Bartholomae Oil Co., No. 2 East Coyote, Orange Co. ..	24- 3-10	4,231	sd. sh. drlg.
Union Oil Co., No. 22 Chapman Richfield, Orange Co.	30- 3- 9	2,951	sd. sh. drlg.
Union Oil Co., No. 29 Chapman Richfield, Orange Co.	30- 3- 9	3,744	deepening
Union Oil Co., No. 30 Chapman Richfield, Orange Co.	30- 3- 9	516	sd. sh. drlg.
Union Oil Co., No. 31 Chapman Richfield, Orange Co.	30- 3- 9	3,257	cmtd. 3,241
Union Oil Co., No. 32 Chapman Richfield, Orange Co.	30- 3- 9	3,183	sd. sh. drlg.
Tehama Pet. Co., No. 2 Kraemer, San Bernardino Co..	33- 2- 8	566	sd. sh. drlg.
Tehama Pet. Co., No. 3 Kraemer, San Bernardino Co..	3- 3- 8	312	sd. sh. drlg.
Tehama Pet. Co., No. 4 Kraemer, San Bernardino Co..	32- 2- 8	148	hd. sd. drlg.
Equitable Pet. Co., No. 1 Wildcat, San Bernardino Co.	11-10- 5	2,398	hd. sd. drlg.

KANSAS

Week Ending June 13. (Descriptions are East unless marked otherwise)

Barber County

Sinclair Prairie Oil Co. No. 1 Gentry, NE cor. sec. 1-33-15w. Rig.

Barton County

F. E. Bailey et al No. 1 Hammeke, NE NE SW sec. 12-18-12w. Rig.

J A. Brouk et al No. 1 Keil, SE SE NE sec. 11-16-15w. R.U.

John Burton No. 1 Wendel. NE cor. sec 13-19-11w. S.D. 63 ft.

Davison et al No. 1 Birzer, SW SE SW **sec. 23-17-12w. Anhydrite 760 ft.;** Topeka 2,770 ft.; drlg. 3,202 ft.

G. H. Rose and W. H. Lant No. 1 Redetzke, NE NW NW sec. 1-16-11w. Drlg. 365 ft.

Rose Spring Drlg. Co. et al No. 1 Rick. SW cor. sec. 1-19-11w. Drlg. 845 ft.

Schermerhorn Oil Co. No. 1 Hunter, NE cor. **sec. 29-18-15w. K.C. 3,194 ft.;** La Motte; Juartzite 3,565-76 ft. T.D.; P.B. 3,534 ft.

Torry & Feaster No. 1 Feist, NE NE SE **sec. 29-18-11w.** Siliceous L. 3,430-32½ ft.; T.D.; potential; pumped 346 bbls. oil in 18½ hrs.

Wakefield & Johnson No. 1 Bumm, SW **SW NE sec. 22-19-12w. Anhydrite 665** ft.; fsg. 2,195 ft.

Butler County

Dalton et al No. 1 Miley, C SW NE sec. 17-27-5. R.U.

Ellis et al No. 1-A Pettit, SE SE NW sec. 21-28-6. S.D. 3,080 ft.

McGinnis et al No. 1 Hinnen, NE NE SW sec. 18-24-4. Drlg. 1,855 ft.

Rex & Morris No. 1 Olson, NW SW SE sec. 15-28-6. Drlg. 2,430 ft.

Ed Solomon No. 1 Church, SW NE SE sec. 8-28-5. Drlg. 50 ft.

Cowley County

Baden Prod. Co. No. 1 Sparks, SE SW NW sec. 35-33-4. Drlg. 2,218 ft.

Benedum-Trees No. 1 Carson, SW SW NW sec. 8-30-4. Drlg. 2,925 ft.

Craft et al No. 1 Whitson, NE NE NE sec. 20-33-4. Drlg. 50 ft.

DeGenther Oil Co. No. 1 Holt, NW NW **SE sec. 15-30-5. Spd. and S.D.**

W. M. McKnabb No. 1 Community, C NE NW sec. 14-34-3. Drlg. 1,850 ft.

A. D. Morton et al No. 1 Roger, SE SE NE sec. 1-31-4. S.D. 910 ft.

Roth & Faurot No. 1 Guthrie, NW cor. Lot 14, sec. 30-33-8. H.F.W. 3,146 ft.; P.B. 2,300 ft.; acidized; 750,000 ft. gas; comp.

Cameron & Pulse No. 1 Simpson, C NE NW sec. 3-30-4. Drlg. 1,030 ft.

Wakefield et al No. 1 Daniels, SE SW SE sec. 3-30-3. S.D. 3,145 ft.

Decatur County

Winkler & Koch No. 1 Veasey, C NW SE sec. 26-3-26w. Rig.

Edwards County

Stanolind O. & G. Co. et al No. 1 Donovan, **C SE SE sec. 14-26-18w. Anhydrite** 1,167 ft.; K.C. 4,028 ft. (cor.); drlg. 4,170 ft.

Ellis County

Albec Oil Co. No. 1 Union Pacific, NE cor. sec. 9-13-20w. Oswald 3,418 ft.; fsg. 3,-463 ft.

Bradley Oil Co. et al No. 1 Penney-Wann, SE cor. sec. 13-15-20w. Anhy. 1,277 ft.; drlg. 1,645 ft.

Bridgeport Mch. Co. No. 1 Ubert, NE NE NW sec. 12-13-18w. Rig.

James Brouk et al No. 1 Jacobs, NW NW SE sec. 31-15-16w. R.U.

Empire O. & R. Co. No. 1 Herl, SE cor. sec. 22-15-19w. Anhydrite 1,135 ft.; drlg. 2,240 ft.

Empire O. & R. Co. No. 1 Samuelson, NE NE SE sec. 31-11-16w. B.R.

Bridgeport Machine Co. et al No. 1 Madden Est., NE NW NW sec. 26-15-18w. Anhy. 1,150 ft.; Topeka 2,935 ft.; C.O. 3,010 ft.

Brunson & Ewers-Simpson No. 1 Gross, NE NE SW sec. 29-14-17w. Anhydrite **1,110 ft.; Topeka 2,960 ft.; Oswald 2,244-**46 ft.; Siliceous 3,511 ft.; T.D. 3,558 ft.; D.&A.

Harris & Haun et al No. 1 Schmeidler, SE SE SW sec. 3-13-17w. Oswald 3,274 ft.; S.O.

Jones & Shelbourne No. 1 Gunther, SE SE SW sec. 9-11-19w. Drlg. 795 ft.

Jones Bros. & Carpenter et al No. 1 Solomon, SE SE SW sec. 28-11-19w. Anhydrite 1,408 ft.; Oswald 3,340 ft.; Siliceous 3,629 ft.; oil rose 1,500 ft. in hole in 12 hrs.; T.D. 3,632 ft.

Kansas Dev. Corp. No. 1 Haller, SE SE NW sec. 10-11-18w. **M.I.M.**

Parrish & Denman No. 1 Walter, SE SW SE sec. 14-13-17w. Anhydrite 1,152 ft.; Drlg. 2,665 ft.

Philhan Oil Co. No. 1 Gerstner, SW SW SE sec. 24-14-17w. Bldg. rig.

J. E. Trigg et al No. 1 Armbrister, SE SE SW sec. 6-11-19w. T.D. 125 ft.; W. O.C.

Twin Drlg. Co. No. 1 Copeland, NE NE SW sec. 26-14-19w. Anhydrite 1,350 ft.; saturated cores 3,704-09 ft.; set 7-in. csg. 3,703 ft.

Twin Drlg. Co. et al No. 1 Schmidt, SW SW SE sec. 22-15-17w. R.U.

Vickers Pet. Co. No. 1 Kraus, SW SW NW sec. 22-14-19w. Anhy. 1,390 ft.; drlg. 2,763 ft.

Wolf Creek Oil Co et al No. 1 Polifka, SW SW NE sec. 24-13-18w. Cellar.

Yarnell & Carlson No. 1 Phillip, NW NW SE sec. 2-14-18w. Anhydrite 1,227 ft.; Oswald 3,332-34 ft.; Siliceous 3,643 ft.; H.F.W. 3,665 ft.; D.&A.

Ellsworth County

Roy Ramsey et al No. 1 Gregory, SW SW SE sec. 25-16-9w. R.U.

York State Oil Co. No. 1 Koestle, NW NW SE sec. 12-17-9w. Rig.

Finney County

Helmerich & Payne No. 1 Jones, C SE sec. 34-26-34w. Rig.

Lone Star State Drlg. Co. No. 1 Hamlin. **SW SW NE sec. 31-24-34w. Set 6-in. csg.** 2,418 ft.; drlg. 2,451 ft.

Graham County

Noah & Young No. 1 Hills, NW SE SE sec. 19-10-21w. Rig.

Vickers Pet. Co. and Phillips Pet. Co. No. 1 Hutton, NE NE SE sec. 29-8-22w. Anhydrite 1,805 ft.; H.F.W. 3,425 ft.; C.O. 3,440 ft.

Greenwood County

Estes et al No. 1 Edgar, NW NW SE sec. **1-26-8. Fsg. 1,030 ft.**

Hale & Reese No. 1 Needles, NE SE NW **sec. 12-25-10. S.D. 285 ft.**

Ward McGinnis No. 1 Lampe, NW NE SW sec. 26-24-8. Drlg. 1,200 ft.

Harper County

Marathon Oil Co. No. 1 Zellers, C SW NW **sec. 17-35-8w. Wilcox sand 5,320 ft.;** S.O. and gas, salty taste; T.D. 5,410 ft.; P.B. 4,400 ft.; whipstock 4,625 ft.

Harvey County

Harburney Oil Co. No. 1 Schrag, NW NW SE sec. 24-22-3w. Set 8-in. csg. 2,870 ft.; C.O.

Haskell County

Helmerich & Payne et al No. 1 Larson, C SE sec. 28-28-33w. Rig.

Helmerich & Payne No. 1 Meredith, C SW sec. 10-30-33w. Loc.

Kuhn Bros. et al No. 1 Nilson, SW SW SE sec. 21-28-32w. Drlg. 2,021 ft.

Kingman County

D. R. Lauck et al No. 1 Prather, C SE sec. 18-27-8w. Drlg. 3,689 ft.

D. R. Lauck et al No. 1 Skilling, C E½ **E½ SW sec. 33-27-8w. O.W.D.D.; drlg.** 4,523 ft

Oklahoma Oil Corp. et al No. 1 Reeves, NW cor. sec. 29-27-5w. Drlg. 3,912 ft.

McPherson County

Empire O. & R. Co. No. 1 Cunningham, SE cor. sec. 26-18-1w. Chat 2,303 ft.; T. D. 2,832 ft.; P. 31 bbls. oil, 75 bbls. wtr. in 24 hrs.; set 8-in. csg. 2,824 ft.

Hawkins et al No. 1 Ritikofer, NE NE SE sec. 2-20-10w. R.U.

T. C. Johnson, et al No. 1 A. R. Johnson, SW SW NW sec. 33-17-1w. U.R. 2,045 ft.

Ness County

Continental Oil Co. No. 1 Thompson, C E½ **E½ SW sec. 13-18-26w. Siliceous and** S.O. 4,446-50 ft.; T.D. 4,462 ft.; est. 150 B.P.D.

Newton Dev. Co. No. 1 Tenny, NW NW SE sec. 19-18-25w. Spd. and S.D.

Reno County

Dickey Oil Co. No. 1-A Shepherd, NE NE **NW sec. 22-26-9w. Chat 3,870 ft.; wtr.,** 4,161 ft.; P.B. 4,135 ft.; T.D. 4,153 ft.; acidized.; pmpd. 25 bbls. fluid, mostly wtr.; S.D.

Foraker et al No. 1 Hiett, SE SW NE **sec. 34-24-4w. S.O. 3,874 ft.; H.F.W. 3,-925 ft.; S.D. 2,948 ft.**

Graham et al No. 1 Miller, NE NE SE sec. 36-25-10w. Rig.

Miller et al No. 1 Detter, NE SE NW sec. 28-22-7w. Drlg. 305 ft.

Rose Spring Drlg. Co. No. 1 Swansen, NE NE NW sec. 1-23-5w. Drlg. 472 ft.

Rice County

Beardmore et al No. 1 Fuller, SW SW SE **sec. 23-18-7w. K.C. 2,777 ft.; Cong. 3,-**111-89 ft.; S.D. 3,340 ft.

Day No. 1 Mason, NW NE NE sec. 28-21-7w. Chat 3,388-3,400 ft.; T.D. 3,431 ft.; est. 20 B.P.D.

Dickey Oil Co. and Continental Oil Co. No. 1 Newkirk, NE NE SW sec. 11-18-**7w. Simpson 3,179 ft.; Viola 3,296 ft.;** T.D. 3,353 ft.; D.&A.

Duwe & Schneider No. 1 Wright, NE cor. sec. 36-21-7w. K.C. 2,925 ft.; H.F.W. 3,-055 ft.; T.D. 3,525 ft.; D.&A.

Gilmac Oil Co. No. 1 Sargent, SE cor. sec. 31-18-6w. Drlg. 2,730 ft.

Grattan et al No. 1 Williams, SW SW NW sec. 17-18-7w. K.C. L. 2,818 ft.; cg. 3,-202 ft.; H.F.W. 3,207 ft.; T.D. 3,363 ft.; D.&A.

Gulf Oil Corp. No. 1 Steckel, SW cor. **sec. 30-19-10w. Set 10-in. csg. 150 ft.**

Permian Oil Co. No. 1 Monroe, C NE NE sec. 9-20-7w. Set 10-in. csg. 2,114 ft.; S.D. 2,605 ft.

Saco Oil Co. et al No. 1 Haxton Est., NW NW NE sec. 30-19-8w. Loc.

Sage et al No. 1 Patton, SW cor. sec. 5-21-7w. Rig.

Shell Pet. Corp. et al No. 1 Hafermann, C N½ N½ SE sec. 6-19-9w. Siliceous 3,-193-95 ft.; R.U.S.T.

Shell Pet. Corp. No. 1 Maughlin, NE NW SE sec. 11-20-8w. Siliceous 3,235-38 ft.; 36,500,000 ft. gas at 3,260 ft.; will kill gas and core.

Simpson & Noble et al No. 1 Pulliam, C S½ N½ NE sec. 35-19-8w. K.C. L. 3,-846 ft.; gas gauged 3,442,000 ft. at 3,242-44 ft.; set 7-in. csg. 3,228 ft.

Simpson & Noble and Stanolind O. & G. Co. No. 1 Bowman, SW SW NW sec 22-19-10w. Anhy. 438 ft.; Siliceous 3,286-94 ft.; saturated core; R.U.S.T.

Skiles et al No. 1 Stout, SE cor. sec. 6-21-9w. Drlg. 3,150 ft.

Rooks County

Hartman & Blair et al No. 1 Hall, NW cor. sec. 25-10-17w. W.O.C. 525 ft.

Helmerich & Payne et al No. 1 Bedard, C NE sec. 29-9-19w. Drlg. 400 ft.

L. C. D. Drlg. Co. et al No. 1 Westhusin, C NE SE sec. 11-9-17w. Drlg. 60 ft.

J. H. Lester No. 1 Methene, SE SE NE sec. 29-10-20w. Drlg. 1,810 ft.

Murfin et al No. 1 Washusin, NE NE SE sec. 19-9-16w. Drlg. 3,335 ft.

J. A. Shoemake No. 1 Stebbins, NE NE SW sec. 26-7-17w. Anhy. 1,180 ft.; drlg. 1,180 ft.

Skaer Oil Corp. et al No. 1 Dryden, NE cor. sec. 28-10-17w. Drlg. 2,960 ft.

Trees Oil Co. No. 1 Minx, SW cor. sec. 31-10-18w. Loc.

Rush County

Boyle & Grossman No. 1 Wilson, NE cor. sec. 33-17-19w. Set 8-in. csg. 2,895 ft.

Ira Keith et al No. 1 Dartmouth Savings **Bank, SW SW NE sec. 3-17-18w.** Oswald 3,335 ft.; cmt. cave 3,368 ft.

National Ref. Co. No. 1 Werth, NW NE NE sec. 7-16-18w. Anhydrite 1,195 ft.; Oswald 3,328 ft.; T.D. 3,572 ft.; acidized; pmpd. 22 B.O.P.H. for 16 hrs.

Pryor & Lockhart et al No. 1 Stegman, **SW NW NE sec. 11-16-17w. Anhydrite** 1,095 ft.; fsg. 3,130 ft.

Russell County

Armer et al No. 1 Maier, NE NW NE sec. 20-15-14w. Spudded.

R. G. Berry et al No. 1 Cook, NE NE SE sec. 19-11-13w. Oswald 3,097 ft.; conglomerate 3,412 ft.; Siliceous 3,532 ft.; U.R. 3,533 ft.

Central Pet. Co. No. 1 Benso "C," SE SE SW sec. 9-14-15w. Granite 3,308-13 ft.; P.B. 3,120 ft.

Darby Pet. Corp. and Continental Oil Co. No. 1 Letsch, SE NE NW sec. 34-14-13w. Granite wash 3,238 ft.; granite 3,262-65 ft.; P.B. 2,880 ft.

Eisenhour & Shaffer No. 1 Humes, SW SW SW sec. 6-14-12w. Siliceous 3,376 ft.; T.D. 3,407 ft.; S.D.

Hartman & Blair No. 1 Johnston, NW cor. sec. 11-13-14w. S.D. 1,000 ft.

Hartman & Blair No. 1 McAllister, SW **SW SE sec. 24-13-15w. Anhydrite 940 ft.;** drlg. 2,890 ft.; S.O.

Lario O. & G. Co. et al No. 1 Steinert, NE NE SW sec. 21-15-15w. Anhy. 875 ft.; set 12-in. csg. 883 ft.

Lee & Reser No. 1 Penix, SW SW SE sec. 13-14-13w. M.I.M.

R. C. Tarrant No. 1 Williamson, SE SE NW sec. 9-14-14w. Tarkio L. 2,515 ft.; T.D. 2,560 ft.; swbd. 5 B.P.H. and showing of wtr.; acidized with 1,000 gals.; made potential of 243 bbls. of oil.

P. G. Reynolds No. 1 Fredrickson, SE SW **SE sec. 6-13-12w. Oswald 2,987 ft.; set** 6-in. csg. 3,017 ft.; T.D. 3,170 ft.; P.B. 3,040 ft.; D.&A.

Wakefield et al No. 1 Krug, NE NW SW sec. 7-15-14w. Anhy. 845 ft.; cmt. cave 2,715 ft.

Saline County

James Brouk et al No. 1 Othelander, NE NW SE sec. 10-16-3w. Spudded and S.D.

Sedgwick County

Joe Aylward et al No. 1 Harrison, SE SE SW sec. 23-25-2. Drlg. 2,755 ft.

Dickey Oil Co. No. 1 Ayers, SW SW NW sec. 12-27-2. Chat 2,886 ft.; H.F.W. 3,-226-30 ft.; T.D.; D.&A.

D. R. Lauck No. 1 Parke, SE SE NE sec. 17-25-2. Drlg. 3,259 ft.

Earl Wakefield et al No. 1 Howard, SE SE NE sec. 25-25-2. Cellar.

Seward County

Helmerich & Payne No. 1 Hyde, C SW sec. 14-31-34w. M.I.M.

Sumner County

Craft & Wilson No. 1 Nevitt, NE NW NE sec. 26-32-2e. Stalnaker 2,223 ft.; K.C. L. 2,608 ft.; drlg. 3,225 ft.

Helmerich & Payne et al No. 1 Elwell, NW **NW NE sec. 18-34-1. Chat 3,867 ft.;** T.D. 3,967 ft.; D.&A.

D. L. Husted et al No. 1 Evers, SE SE NE sec. 27-31-2. Set 12-in. csg. 412 ft.

Matthews & Derrington No. 1 Berry, NW NW SE sec. 14-35-1. Set 8-in. csg. 3,-022 ft.; S.D.

Pryor & Lockhart et al No. 1 Knowles, SW cor. sec. 30-30-1. K.C. L. 2,858 ft.; Chat 3,499 ft. (cor.); drlg. 3,908 ft.

E. B. Shawver No. 1 Judd, SW SE NE sec. 3-34-2. Drlg. 1,535 ft.

Texas Co. No. 1 Reed, NE SE SE sec. 11-31-1w. Drlg. 1,684 ft.

Wilcox O. & G. et al No. 1 Hess, SE SE NW sec. 13-34-2w. Chat 4,120 ft.; Wilcox sd. 4,584 ft.; T.D. 4,605 ft.; D.&A.

D. J. Wilson et al No. 1 Clark, 1,320 ft. from W and 25 ft. from S line of NW sec. 15-35-1w. Drlg. 4,300 ft.

Trego County

Central Commercial No. 1 Wagg, NW NW SE sec. 17-13-21w. K.C. L. 3,548 ft.; bld. 10 bbls. oil in 8 hrs. at 3,950 ft.; drlg. 4,191 ft.

J. J. Hall et al No. 1 Deines, SE SE SE sec. 12-13-24w. Drlg. 1,390 ft.

Woodson County

N. C. Dunn No. 1 Dawson, C NW NE sec. 27-26-13. L. 1,505 ft.; T.D. 1,527 ft.; **P.B. 1,200 ft.; H.F.G.; no test.**

Foster et al No. 1 Timm, SE NW NE sec. 36-25-13. S.D. 1,465 ft.

Lester et al No. 1 Weidle, NE NE SE sec. 17-25-14. S.D. 675 ft.
C. L. Sheedy No. 1 Abbott, NE NE SW sec. 16-25-14. Set 6-in. csg. 1,430 ft.; C.O.
C. L. Sheedy et al No. 1 Fuhlhage, NE NW SW sec. 27-25-14. Drlg. 750 ft.

OKLAHOMA

Week Ending June 13

NORTHERN OKLAHOMA

Beckham County

Jo-Gail Drlg. Co. No. 1 Gilliland, C NE NE sec. 33-8-26w. Machine.

Cleveland County

Hall-Briscoe, Inc., No. 1 Fant, SW SW NE sec. 27-10-2w. S.D. at 7,511 ft.

Coal County

Carter Oil Co. and Magnolia Pet. Co. No. 1 James, SW NW SW sec. 35-1s-8. R. U.R.
W. C. Mitchell No. 1 Quiett, NE NW SW sec. 35-1-8. Drlg. 696 ft.
Shell Pet. Corp. No. 3 Hill, SE SE NW sec. 30-3-10. Hunton 5,280 ft.; Sylvan 5,355 ft.; Viola 5,448 ft.; S.O. 5,640-57 sd. 6,275 ft.; T.D. 6,457 ft.; P.B. 4,-330 ft.
Sinclair Prairie Oil Co. No. 1 Culver, NE NE SW sec. 16-1-8. R.U.R.

Garfield County

Herndon Drlg. Co. etal No. 1 Branson, SW SW SE sec. 23-24-3w. Drlg. 4,780 ft.
Earl McBride et al No. 1 Gage Est., SE SE NW sec. 27-22-3w. T.D. 1,255 ft.; lowering 10-in. csg.
W. J. Sherry et al No. 1 Haken, NW NW SW sec. 32-20-10w. Miss. L. 5,960 ft.; whpstk. 5,839 ft.; T.D. 6,456 ft.
Stanolind O. & G. Co. et al No. 1 Brunken, SW SW NE sec. 32-23-4w. Top Dense 6,915 ft.; Dolomite 5,935 ft.; first Wilcox 5,975 ft.; second Wilcox 6,033 ft.; H.F.W. 6,130-33 ft.; T.D. 6,133 ft. in sd.; R.U.R. to deepen.

Garvin County

Charles E. Carter et al No. 1 Wood, NW SW SE sec. 5-4-3. O.W.D.D.; sd. 2,973 ft.; Hunton 3,000 ft.; cd. 3,010-18 ft.; S.O.; to set 7-in. csg.
McElreath & Suggett No. 1 Lasater, SE SE SW sec. 2-2-1w. T.D. 2,878 ft.; rng. sur.

Grady County

John Graham et al No. 1 Castleberry, SW SE NW sec. 8-5-7w. R.U.R.
Ray Stevens No. 1 Mays, NE cor. sec. 1-3-8w. Drk.

Hughes County

Blackwell O. & G. Co. No. 1 Long, SE NE NW sec. 29-9-9. Sand 1,215-35 ft.; T.D. 1,695 ft.; pulling 12-in. csg.
M. H. Halsey No. 1-A Eustep, NW NW SW sec. 11-8-9. Wapanucka 3,428 ft.; Cromwell 3,452 ft.; T.D. 3,454 ft.; 2 bailers wtr. an hr.; P.B. and shot 3,030-45 ft.; est. 10,000,000 ft. of gas; P.B. to 3,412 ft.; re-shot.
George Orr et al No. 1 Morgan, NE SE SW sec. 6-7-9. Cellar and pits.
Phillips Pet. Co. No. 1 Eberle, NE NE SW sec. 12-5-9. Wapanucka 3,887 ft.; Cromwell 4,368 ft.; Mayes 5,160 ft.; Woodford 5,230 ft.; Hunton 5,432 ft.; Sylvan 5,435 ft.; Viola 5,525 ft.; T.D. 5,540 ft.; bailing.
Sinclair Prairie Oil Co. et al No. 1 Wilkly, SW cor. sec. 23-9-8. Calvin 1,505 ft.; S.D. for wtr. 3,025 ft.
Sivalls et al No. 1 Montgomery, NW SW NW sec. 7-9-9. Booch 2,950 ft.; Gilcrease 3,100 ft.; sd. 3,246-80 ft.; U.R.

Kay County

W. O. Allen No. 1 Fulton, SE cor. sec. 18-27-4. Drlg. 1,520 ft.

Kiowa County

Atlantic Oil Producing Co. No. 1 Ta-Home, NE NW NE sec. 24-7-16w. T.D. 1,354 ft.; D.&A.
Beeler & Klein No. 1 Parrish, SE SE NW sec. 3-6-15w. Drlg 75 ft.
E. A. De Bolt et al No. 1 Burnett, NW SE NE sec. 30-7-20w. Pits.

Le Flore County

McCraw et al No. 1 Tidwell, C NW SE sec. 17-3-22. Set 10-in. csg. 1,560 ft.; T. D. 1,750 ft.; rep. rig.

Lincoln County

Amerada Petroleum Corp. et al No. 1 Zimmerman, SW SW NE sec. 10-12-5. Drlg. 4,175 ft.
Mid-Continent Pet. Corp. and Texas Co. No. 1 Hillman, SW SE NE sec. 29-13-6. Drlg. 1,630 ft.
Skelly Oil Co. No. 1 Sporn, NW NE SW sec. 21-17-3. Bldg. rig.

Logan County

W. N. Anthony and H. G. Marshall No. 1 Fruin-Eckman, SE SE SW sec. 4-16-1. T.D. 5,285 ft.; P.B. 5,181 ft.; swdg. pipe.

McClain County

Arab Pet. Corp. No. 1 Autry, NW cor. sec. 16-7-3w. T.D. 8,775 ft.; lost drill pipe; fish at 8,240 ft.; sdtkd. 8,300 ft.; S.D.O.

McCurtain County

Louis Sikes No. 1 Mitchell, C NW SW sec. 12-9s-26. Spudded and S.D. for 30 days.

McIntosh County

S. E. Dieckman No. 1 K. McIntosh, SE cor. sec. 4-12-17. Drlg. 500 ft.
Indian Ty. Ill. Oil Co. No. 1 Tancred, 1-050 ft. S and 390 ft. E of C sec. 9-9-14. Wilcox 4,525 ft.; T.D. 4,536 ft.; P.B. 3,-731 ft.; wtr. exhausted; S.D.O.

Noble County

Stanolind O. & G. Co. and Amerada Pet. Corp. No. 1 Gillham, NE SE SE sec. 14-22-1. Rig.

Okfuskee County

Amerada Pet. Corp. and Stanolind O. & G. Co. No. 1 Wells, SW SW NW sec. 7-11-7. Hunton 4,167 ft.; Wilcox 4,454 ft.; second Wilcox 4,488 ft.; T.D. 4,503 ft.; D.&A.
Champlin Ref. Co. No. 1 Thompson, SW SW NW sec. 7-13-8. T.D. 1,147 ft.; fsg.

Oklahoma County

I. D. O'Shaughnessy, Inc. No. 1 Berlowitz, SE SW NE sec. 9-12-3w. Drlg. 3,685 ft.
H. R. Hollenback et al No. 1 Cooper, NW NW NE sec. 15-11-1. Oswego, 5,435 ft. Hunton 5,857 ft.; Sylvan 5,998 ft.; Viola 6,093 ft.; Simpson 6,133 ft.; first Wilcox 6,232 ft.; second Wilcox 6,340-60 ft.; S.D. 6,375 ft.

Osage County

Gray & Folson No. 1 Osage, SW SW NE sec. 33-25-7. Drlg. 1,800 ft.
Midco Oil Corp. et al No. 1 Osage, NW NW SE sec. 11-23-6. Bartlesville 2,725-2,824 ft.; Chat 2,877 ft.; H.F.W. 2,885-93 ft.; D.&A.
Stoner Bros. No. 1 Osage, NW NE SW sec. 18-22-8. Drlg. 200 ft.

Payne County

Amerada Pet. Corp. and Stanolind O. & G. Co. No. 1 Pratt, SE cor. sec. 29-19-5. Misener 3,657 ft.; 2,000,000 ft. of gas; S.O.; Viola 3,671 ft.; T.D. 3,675 ft.; tstg.
Denver Producing & Ref. Co. et al No. 1 Pratt, NW cor. sec. 20-18-3. Bartlesville 4,095 ft.; drlg. 4,105 ft.

Pittsburg County

Okla. Dist. Oil Co. No. 1 Beeler, NE NE SW sec. 7-7-14. Rig.

Pontotoc County

Selby O. & G. Co. No. 1 Sands, NE NE NE sec. 20-3-5. Drlg. 1,528 ft.
Southard & Miller No. 1 Wilson, NW SE SW sec. 26-4-5. Spudded and S.D.

Pottawatomie County

J. L. Shaw No. 1 Illinois Life, NW SE NW sec. 1-4-5. Drlg. 1,590 ft.

Seminole County

Ark Royalty Co. No. 1 Kiker, SE SE NE sec. 9-10-7. Drlg. 580 ft.
J. E. Crosbie, Inc., and Blankenship & Quiett No. 1 Biggers, C N½ N½ NE sec. 30-6-8. R.U.R.
Felmlee & Nichaelson No. 1 Belford, SE NW NE sec. 15-9-8. Sd. 1,460-1,505 ft.; S.O.&G.; S.D. 1,680 ft.
Tom Phillips & Kinrow Drlg. Co. No. 1 Cheparney, SE SE NW sec. 7-6-7. Drlg. 1,135 ft.

Washita County

L. P. McWhirter No. 1 fee, SW cor. sec. 34-8n-19w. T.D. 1,465 ft.; S.D.

SOUTHERN OKLAHOMA

Atoka County

D. Malarnee et al No. 2-A DOK ranch, SE cor. sec. 35-2s-13e. O.W.D.D.; T.D. 3,482 ft.; U.R. 8-in. csg.
Phelps & Coats et al No. 1 Fidelity Life Ins. Co., SE SW NW sec. 23-1s-12. Drlg. 685 ft.
Prairie Investment Co. No. 1 A. Cobb, SW NE NW sec. 19-3s-11e. Drlg. 145 ft.
Riverland Oil Co. No. 1 Jones, SW SW NE sec. 4-3s-9e. Hunton 1,517 ft.; Sylvan 1,573 ft.; Viola 1,762 ft.; T.D. 2,724 ft.; D.&A.

Carter County

Carter Oil Co. No. 1 Carter-Williams, SW NE SW sec. 27-2s-3w. T.D. 8,105 ft.; flowed 3,309 bbls. first 24 hrs.; comp.
Carter Oil Co. et al No. 1 Leon Voorhees, C SE SW sec. 34-5s-2w. T.D. 6,470 ft.; W.O.C.
W. E. Hammond No. 1 J. Rile, SW SE SE sec. 8-5s-1e. Drlg. 475 ft.
Texas Co. No. 1 Cathey, SE NE NE sec. 6-5s-1w. T.D. 4,191 ft.; pmpg. 18 B.P.D.; comp.

Cotton County

English Drlg. Co. No. 1 Wilson, NW NW SE sec. 7-4s-11w. T. D. 1,514 ft.; S.D.

Harmon County

Lionilko Trust, Ltd. No. 1 Crosnoe, SE SE SW sec. 14-3n-25w. T.D. 2,870 ft.; S.D. for D.P.

Jackson County

C. P. Burnham No. 1 Oliver, NW NW SE sec. 26-1-20w. Granite Wash 1,350 ft.; gas 500,000 ft.; drlg. 1,890 ft.
John Dickson et al No. 1 W. B. Wright, NE NW SE sec. 19-1-19w. Drlg. 3,160 ft.
A. H. Jackman No. 1 fee, SW SW SW sec 27-1s-24w. T.D. 2,685 ft.; fsg.
J. Ben Russell No. 1 Daniel, NW NE SE sec. 13-3-20w. Drlg. 65 ft.
Universal Oil Co. No. 1 R. W. Briscoe NW SW NE sec. 36-1s-20w. T.D. 3,004 ft.

Jefferson County

A. T. Campbell No. 1 Trout, SE NE NE sec. 6-8s-7w. Sd. 1,525-57 ft.; T.D. 1,-202 ft.; S.D. for csg.
Pearson et al No. 1 Douthitt, NE cor. sec. 24-6s-9w. T.D. 2,180 ft.; S.D.

Johnston County

Equitable O. & G. Co. No. 1 Bellsey, NE SW sec. 12-2s-4e. Arbuckle L. 1,552 ft.; drlg. 1,938 ft. in L.

Love County

Amerada Pet. Corp. No. 1-A Westheimer & Daube, SW SE SW sec. 27-6s-2e. T.D. 7,363 ft.; P.B. 2,970 ft.; acidized; flwd 120 bbls. last 24 hrs.; tstg. bottom-hole pressure.
J. B. Russell et al No. 1 Scott, SW SE SW sec. 29-8s-2e. T.D. 4,968 ft.; taking down tools.
Sinclair Prairie Oil Co. No. 1 Stockton, SE SE SW sec. 26-6s-2w. T.D. 8,785 ft.; drld. by fish; W.O.C.

Marshall County

Helmerich & Payne No. 1 Taliaferro, NW SE SW sec. 26-5s-5e. Drlg. 2,315 ft.

Pushmataha County

C. W. Whitehead et al No. 1 Misser, SE SW SW sec. 35-3s-18e. T.A.; T.D. 1,-560 ft.

Stephens County

W. G. Endicott et al No. 1 McFatridge, NW NW SW sec. 11-3s-9w. Drlg. 1,-450 ft.
T. H. McCasland No. 1 J. C. Parker, NE NE SW sec. 2-1n-6w. S.D. 2,518 ft.

Tillman County

Rochelle Birnheim No. 1 Ttate, NE NE NW sec. 16-1s-19w. R.U.R.; spud.
Gulf Oil Corp. et al No. 1 McWilliams, NW SW SW sec. 15-3s-17w. Drlg. 2,510 ft.
Gulf Oil Corp. No. 1 Wearmouth, SE NW SE sec. 31-1s-18w. T.D. 4,737 ft.; tstg.
Johnson, Young & Mitchell No. 1 Donahoe, SW NW NW sec. 7-4s-17w. Drlg. 2,260 ft.
Shirley, Clum et al No. 1 Moricle, NW NW SE sec. 16-4s-14w. T.D. 1,320 ft.; S.D.
D. S. Smith No. 1-A Hammill, NE NE NW NW sec. 6-5s-15w. T.D. 1,243 ft.; S.D.

ARKANSAS

Arkansas County

Ark. O. & G. Co. No. 3 Fischer, 250 ft. S. 200 ft. E. NW cor. NE NW sec. 6-4w. Rig; S.D.; W.O.

Bradley County

Phillips Pet. Co. No. 1 C. H. Murphy et al, NW cor. NW NW sec. 12-17-11. R.U.

Calhoun County

Ben G. Barnett No. 1 Freeman Smith, SE cor. sec. 36-15-14. Drlg. 3,450 ft.
T. R. Brown et al No. 1 Calion Lbr. Co., C S½ SE SW sec. 22-15-15. T.D. 650 ft.; 10-in. 647 ft.

Clark County

Boris Tripanoff, Tr., No. 1 W. Gibbons, sec. 27-8-18. Prep. to set csg. 557 ft.

Columbia County

J. C. Buckbee, Tr., No. 1 Wilson, 330 ft. N and E, C sec. 17-17-18. Cg. 4,360 ft.

Crawford County

Carter Oil Co. and Donald Trumbo No. 1 Cradduck, C NW NE sec. 3-11n-30w. Prep. set csg. 1,230 ft.

Dallas County

Kel-Mac Lease & Royalty Co. No. 2 R. Owens, NW cor. NW SW sec. 26-10-16. S.D. 1,924 ft.

Hempstead County

Dixie Drlg. Co. No. 1 Wheatley, 330 ft S 30 ft. E. NW cor. SW NE sec. 14-11-26 R.U. and W.O.O.
M. D. Fitzwater No. 2 Lafferty, sec. 17-14-24. S.D. at 2,415 ft.
Murdock-May & Easton No. 1 Conway Est., 330 ft. N and E. SW cor. NW SW sec. 17-14-24. Drlg. 2,489 ft.

LaFayette County

Erwin & Leach No. 3 Bodcaw Lbr. Co., 330 ft. S and E. NW cor. sec. 20-16-13. Drlg. 7,632 ft.; gas sd. 7,612-14 ft.
A. M. Neeley No. 1 Meek, 330 ft. S and W. NE cor. NE NW sec. 35-19-25. R.U.

Little River County

Roberts et al No. 1 Hall, sec. 22-13-29 O.W.D.D.; S.D. at 2,050 ft.

Loanoke County

Frank F. Silver et al No. 1 Joe Chambers, C NE sec. 17-2n-7w. Drlg. 1,470 ft.

Miller County

Deep Rock Oil Corp. No. 1 Williams, NW cor. SW NW sec. 6-16-25. Made D.S. test; S.O. 2,931-47 ft.
Odell Hinson No. 1 Montana Realty Co., NE cor. NW NW sec. 3-17-28. Set 12¼-in. csg. 238 ft.; S.D.O.
King Oil Corp. No. 1 G. W. Crank, SW NE sec. 19-26-25. T.A. 3,906 ft.
King Oil Corp. No. 1 Mann, NW cor. NW SE sec. 2-16-26. Drlg. 850 ft.
M. L. Luckett No. 1 Beck, sec. 34-15-26. S.D. at 2,946 ft.
L. H. Mahon et al No. 1 Miller Land & Timber Co., SW cor. SE sec. 29-18-27 S.D. 1,845 ft.

Ouachita County

Armstrong-Rhoda No. 1 M. Bragg, SE cor. SE NW sec. 25-13-18. Drlg. 990 ft.; 12-in. 52 ft.
Carnes & Harrell No. 1 Dunn & Robinson, new loc., 440 ft. S, 440 ft. E, NW cor. NW SE sec. 7-12-19. Drlg. 2,306 ft.
Edgar Johnson et al No. 1 J. M. Ferris, 660 ft. N and 330 ft. E, SW cor. NE sec. 26-15-15. Loc. abd.
Lion Oil Ref. Co. No. 1 Reynolds, C E½ SE NE sec. 28-15-15. Drlg. 3,405 ft.
L. L. McDonald No. 1 Langley, 330 ft. N and E, SW cor. NE SW sec. 19-15-15. S.D. 3,116 ft.
Phillips Pet. Co. No. 1 Arnold, 660 ft. S and 330 ft. E, NW cor. NE sec. 27-15-15. 13-in. 628 ft.; drlg. 2,624 ft.
Phillips Pet. Co. No. 1 Cheatham, 660 ft. N and 330 ft. E, SW cor. NE sec. 27-15-15. Drlg. 940 ft.
Phillips No 1 E. Gette, 660 ft. N and 330 ft. E, SW cor. NE sec. 27-15-15. Drlg. 1,030 ft.
Phillips Pet. Co. No. 1 L. Harriss, 660 ft. N and 330 ft. W, SE cor. SW NE sec. 28-15-15. Drlg. 3,435 ft.
John Pugh No. 1-A P. T. Hildebrand, 660 ft. N and 330 ft. W, SE cor. sec. 28-15-15. Drlg. sdy. sh. 4,518 ft.
J. D. Reynolds No. 1 McKenzie, 204 ft. S, 300 ft. W, NE cor. SE SW sec. 36-15-16. T.D. 2,005 ft.; pmpd. 25 B.P.D.; comp.
Standard Oil Co. of La. No. 3-B Reynolds, 660 ft. N and 330 ft. W, SE cor. NW SW sec. 27-15-15. Drlg. 4,718 ft.
O. F. Whittaker, Tr., No. 1 S. Howard, 600 ft. E and 150 ft. N, SW cor. NW NE sec. 20-12-16. Drlg. 2,309 ft.

Union County

Ark.-Southern Oil Co. No. 1 M. H. Simmons, NW cor. NW NE sec. 15-18-13. Drk.
J. C. Buckbee No. 2 Ezzell, SW cor. NE NW sec. 13-17-15. Cg. SW sd. 4,263 ft.
J. E. Crosbie, Inc., No. 1 G. Morris, 340 ft. N and 260 ft. E, SW cor. NW SW sec. 7-17-13. Cg. 4,490 ft.; D.S.T. 8,000,-000 ft. gas; cmtd. 7-in. 3,276 ft.
Kinnebrow & Simpson No. 1 L. Adams, SW cor. NE NE sec. 12-17-14. Cd. 3,166-72 ft.; S.D.; W.O.
Marine Oil Co. No. 1 Simmons, 250 ft. S and W, NE cor. SE NW sec. 10-18-13. Drk.
McCressien Oil Co. No. 2 D. Norman, NE cor. NE SE sec. 3-18-13. W.O. jack to pump. 3,556 ft.

LOUISIANA

NORTH LOUISIANA PROVEN

Caddo-Rodessa

American Lib. O. Co. No. 1 Norton, 330 ft. S and 330 ft. W, NE cor. sec. 17-22-15. 16-in. 162 ft.; drlg. 3,858 ft.
Ark.-La. Gas Co. No. 13 Rodessa O. & L. Co., 2,330 ft. N and 1,136 ft. W, SE cor. sec. 22-23-16. Drlg. 5,108 ft.
Ark.-La. Gas Co. No. 17 Rodessa O. & L. Co., SE cor. SW NW sec. 23-23-16. Cg. 5,950 ft.
Ark.-La. Gas Co. No. 18 Rodessa O. & L. Co., NW cor. sec. 23-23-16. Drlg. 8,-230 ft.
Ark.-La. Gas Co. No. 19 Rodessa O. & L. Co., NE cor. NE SE sec. 22-23-16. Drlg. 3,458 ft.; 10-in. 2,019 ft.
Ark.-La. Gas Co. No. 20 Rodessa O. & L. Co., NW cor. SW sec. 23-23-16. 10-in. 227 ft.; drlg. 565 ft.
Blackwell O. & G. No. 2 Neugent, 330 ft. S and 330 ft. E NW cor. NE SE sec. 8-23-15. 10-in. 2,223 ft.; drlg. 2,258 ft.
S. P. Borden No. 2 K.C.S., NW cor. SW sec. 23-23-16. Drlg. 3,729 ft.
Canadian Oil Co. No. 1 Comegys, SE cor. sec. 10-23-16. Drlg. 5,855 ft.
J. Edward Jones No. 1 Gibson, SW cor. SE SW sec. 22-23-16. Set 16-in. 250 ft.; cmtd. 7-in. 6,055 ft.; comp. flw. 43 B.P. H.; 7/16-in. tbg. ck.; T.P. 330 lbs.; T.D. 6,065 ft.
M. H. Marr et al No. 2 Peak, SW cor. SE sec. 11-23-16. T.D. 6,047 ft.; flwd. some oil and went dead; now swbg.
R. W. Norton No. 3 Atkins Unit, 175 ft. S, 1,286 ft. W, NE cor. sec. 18-23-16. Drlg. 5,269 ft.
R. W. Norton No. 4 Atkins Unit, 820 ft. N, 441 ft. E, SW cor. SE¼ sec. 7-23-15. Loc.
R. W. Norton No. 5 Atkins Unit, 660 ft. S and E, NW cor. NW NE sec. 18-23-15. Loc.
R. W. Norton No. 2 Elder, 330 ft. S and

W, NE cor. sec. 23-23-16. Set 9-in. 2,052 ft.; drlg. 5,045 ft.

R. W. Norton No. 3 Foscue Unit, NE cor. sec. 29-23-16. Drlg. 5,475 ft.

R. W. Norton No. 4 Foscue Unit, SE cor. sec. 20-23-16. T.D. 5,938 ft.; core bbl. stuck.

R. W. Norton No. 5 Foscue Unit, 1,980 ft. S. 660 ft. W. NE cor. sec. 29-23-16. Loc.

R. W. Norton No. 5-A Caddo Lv. Bd., 2,-600 ft. N and 600 ft. W, C sec. 28-23-16. P.B. to 750 ft.; S.R.

R. W. Norton No. 6-A Caddo Lv. Bd., 2,-600 ft. N and 660 ft. W, C sec. 28-23-16. Drlg. 4,916 ft.

R. W. Norton No. 2 N. S. Spearman, 330 ft. S and 660 ft. E, NW cor. SW sec. 18-23-15. 9-in. 2,071 ft.; drlg. 4,340 ft.

R. W. Norton No. 4 Tyson heirs, 2,943 ft. N and 3,313 ft. E, SW cor. sec. 13-23-16. T.D. 6,083 ft.; cmt. 6-in. 6,079 ft.

Phillips Pet. Co. No. 1 Adams, NW cor. sec. 17-23-15. Set 16-in. 252 ft.; cmtd. 7-in. 6,032 ft.; comp.; T.D. 6,055 ft.; flwd. 17 B.P.H., ¾-in. tub. ck.

Phillips Pet. Co. No. 2 Adams, NW cor. NW NW sec. 17-23-15. T.D. 6,039 ft.; 7-in. cmt. 6,000 ft.

Phillips No. 3 Adams, 315 ft. S and 1,707 ft. E, NW cor. sec. 17-23-16. R.U.

Phillips Pet. Co. No. 5 Norton Est., SW cor. NW sec. 17-23-15. Set 16-in.; drlg. 5,271 ft.

Phillips No. 6 Norton Est., 1,664 ft. E and 1,794 ft. S, NW cor. sec. 17-23-15. 10-in. 225 ft.; drlg. 1,055 ft.

Phillips Pet. Co. No. 1 Robinson, C E½ NE SE sec. 18-23-15. Whipstock at 2,-593 ft.; drlg. 3,862 ft.

Phillips No. 1 J. T. Smith, 330 ft. S and 330 ft. W NE cor. SW SE sec. 3-23-15. Drlg. 50 ft.

Regent Oil Corp. No. 1 Tyson, 104 ft. S, 104 ft. E NW cor. SE SW sec. 24-23-16. 13-in. 250 ft.; drlg. 1,800 ft.

H. W. Snowden No. 1 Phillips, C Lot 11, Blk. 36, sec. 23-23-16. Drlg. 5,125 ft.

H. W. Snowden No. 8 Phillips, C Lot 7, Blk. 47, Townsite, sec. 23-23-16. 16-in. 229 ft.; drlg. 1,505 ft.

Snowden & Anding No 1 Taylor, C Lot 7, Blk. 46, Townsite, sec. 23-23-16. Drlg. 156 ft.

Standard No. 16 Lawton, NE cor. SW NW sec. 14-23-16. Set 7-in. 5,919 ft.; T.D. 5,997 ft.; flwd. 55 B.P.H., 1¼-in. tub. ck.

Standard No. 17 Lawton, 100 ft. N and 764 ft. W. SE cor. NW sec. 14-23-16. 13-in. at 262 ft.; 9-in. 2,084 ft.; drlg. 5,403 ft.

Standard No. 6 Otwell, NE cor. SE SE sec. 15-23-16. Comp.; 152 B.P.H.; 1¾-in. tbg. ch.; T.D. 6,001 ft.

Standard No. 7 Otwell, SW cor. SE SE sec. 15-23-16. Loc.

Standard No. 8 Otwell, NW cor. SE SE sec. 15-23-16. Loc.

Standard No. 4-A M. L. Pitts, 330 ft. N and W, SE sec. 11-23-16. Set 12½-in. at 265 ft.; drlg. 5,828 ft.

Simplex Oil Co. No. 3 Natalie, 1,175 ft. N and 200 ft. W SE cor. W½ SE¼, sec. 10-20-15. 10-in. at 100 ft.; W.O.C.S.

Tri-State O. & G. Co. No. 1 Hall, C Lot 12, Blk. 29, sec. 23-23-16. 10-in. at 2,-202 ft.; drlg. 4,905 ft.

Tri-State O. & G. Co. No. 1 F. L. Westbrook, C Lot 6, Blk. 13, sec. 23-23-16. T.D. 6,000 ft.; milling on junk.

United No. 4 Brewer Unit, NE cor. 55 ac., sec. 29-23-16. Comp. flw. 58 B.P.H.; ½-in. tbg. ck.; T.D. 6,030 ft.

United No. 6 Brewer Unit, 1,094 ft. N and 569 ft. E, SW cor. sec. 22-23-16. 13-in. at 323 ft.; drlg. 2,690 ft.

United No. 2 Harris, 326 ft. W, 330 ft. N, SE cor. SE SE sec. 15-23-16. Comp. flw. 21 B.P.H.; ½-in. tbg. ck.; T.D. 6,007 ft.

United No. 3 Harris, NE cor. sec. 15-23-16. Drlg. 4,494 ft.

United Gas Co. No. 2 Lindsay Maround Unit, 133 ft. S, 111 ft. W, NE NW NW sec. 24-23-16. Loc.

United Gas Pub. Ser. Co. No. 1 McCoy, NE cor. sec. 16-23-16. 7-in. 5,893 ft.; flw. 8 B.P.H.; prep. to acidize.

United No. 4 Miller, sec. 14-23-16. Drlg. 5,257 ft.

United No. 2 Mitchell, SW cor. of lse., sec. 20-23-16. Drlg. 4,450 ft.

United No. 5 M. L. Pitts, 312 ft. N and 658 ft. W, SE cor. NW SE sec. 12-23-16. Csg. seat gave way; cmtd. blk. 5,990 ft.; T.D. 6,040 ft.

United No. 7 Pitts, NE cor. SW SW sec. 13-23-16. T.D. 6,095 ft.; cmt. 7-in. 6,-067 ft.

United No. 8 Pitts, SW cor. of E 28 ac., NE SW sec. 15-23-16. Drlg. 3,858 ft.

United Gas No. 9 M. L. Pitts Unit, 113 ft. N, 111 ft. W, SE SW SW sec. 13-23-16. Loc.

United No. 3 N. S. Spearman, SW cor. SE NW sec. 18-23-15. T.D. 6,037 ft.; 7-in. cmt. 6,020 ft.

United Gas No. 4 N. S. Spearman Unit, 659 ft. S, 650 ft. W, NE NW sec. 18-23-15. Drlg.

United Gas No. 1 Teamer, 133 ft. S, 111 ft. E, NW NE NW sec. 24-23-16. Loc.

United Gas No. 6 Thomas Unit, 319 ft. N. 329 ft. E, SW NE NW sec. 23-23-16. 13-in. set 315 ft.; W.O.C.S.

United No. 10 N. S. Tyson Unit, SW cor. SE SE sec. 11-23-16. 7-in. cmt. 6,014 ft.; tstg.; T.D. 6,030 ft.

United Gas Pub. Ser. Co. No. 23 Rodessa Oil & Land Co., NW cor. sec. 15-23-16. T.D. 5,987 ft.; 7-in. cmt. 5,875 ft.; W. O.C.S.

United Gas No. 23 Rodessa O. & L. Co., 319 ft. N, 423 ft. W, SE NW NW sec. 23-23-16. Loc.

United Gas Pub. Ser. Co. No. 2 U. S. Govt., 660 ft. S and 1,146 ft. E, NW cor. of 54 ac., sec. 29-23-16. 13-in. 315 ft.; drlg. 4,059 ft.

Grady Vaughn No. 2 Hunter-Derryberry, sec. 14-23-16. T.D. 6,024 ft.; bailer stuck; well tstd. all S.W.

Sabine Parish—Zwolle

Ellis Prod. Co. No. 1 Williams, 330 ft. S and W, NE cor. SE NE sec. 23-7-11. Tested dry; S.D.; W.O. 2,806 ft.

N. LOUISIANA WILDCATS

Bienville Parish

Rondeau et al No 1 Locke, 150 ft. S and 1,495 ft. W, NE cor. sec. 9-15-10. Drlg.

A. C. Walters No. 1 D. B. Davis, C SE SW sec. 3-16-9w. Drlg.

Bossier Parish

Geo. H. Bringhurst et al No. 1 Buckley, NE SW sec. 33-21-13. S.D. 2,309 ft.

Producers O. & G. Co. No. 1 Webb, C W½ SW sec. 22-17-12. Set 10-in. 1,304 ft.; W.O.C.S.

Tidwell et al No. 1 Nattin, 200 ft. S and W, C sec. 16-23-14. Set 10-in. 66 ft.; S.D. 1,650 ft.

Triangle Drlg. Co. No. 1-E Skannal, 660 ft. N and 2,640 ft. W, SE cor. sec. 23-17-12. 12-in. set 252 ft.; W.O.C.S.

United Gas Pub. Ser. Co. No. 1-D H. L. Skannal, 660 ft. S, 561 ft. W, NE cor. SE sec. 22-17-12. Drlg. 3,675 ft.

Caddo Parish

Calatex O. & G. Co. No. 2 Scott, 1,038 ft. W, 807 ft. N, SE cor. sec. 5-16-16. Set 10-in. at 125 ft.; drlg. 2,042 ft.

Calatex O. & G. Co. No. 2 Hudson, 1,319 ft. N and 913 ft. E, SW cor. sec. 5-16-16. Loc.

R. E. Dalton No. 1 Noel Est., SW cor. SE SE sec. 4-21-14. R.U.

Falcon Oil Co. No. 15 Deckson, NW SE sec. 27-20-15. P.B. 2,343 ft.; old T.D. 2,349 ft.

Hillman et al No. 2 Noel Est., 530 ft. S and 330 ft. W, NE cor. sec. 12-20-16. T.D. 2,171 ft.; prep. set csg.

J. B. Hutchinson No. 2 Storey-Phillips, SW cor. NE NW sec. 28-16-13. Drlg.

Kenwood Pool, Ins., No. 1 W. K. Henderson, 1,980 ft. S and 200 ft. E, NW cor. sec. 15-19-15. Csg. 2,436 ft.

Bill Morefield et al No. 1 Stokely, 745 ft. S and 100 ft. E, C sec. 5-20-16. R.U.

Morris & Wooley No. 1 Pender, NW cor. SW sec. 11-20-15. T.D. 2,207 ft.; will run 6-in.

Persian Oil Co. No. 1 J. E. Cuppies, 500 ft. S and 350 ft. W, NE cor. sec. 24-16-13. Drlg.

Press & Lambert No. 1 fee, SW cor. NE SE sec. 10-20-15. Comp.; flowed 200 bbls. per day; T.D. 2,205 ft.

Pyramid O. & G. Co. No. 1-A S. R. Wheeler, 1,320 ft. S, 1,500 ft. W, NE cor. sec. 16-18-16. P.B. 4,830 ft.; retstd. S.W.; drld. out to 4,833 ft.; tstd. S.W.; W.O.

Sport Oil Corp. No. 1-D Muslow, SE cor. sec. 5-20-15. Cg. 3,615 ft.

Caldwell Parish

Critchett & Woods No. 1 Kyles, NE cor. **SW NE sec. 12-11-3e. P.B. to 1,300 ft.;** old T.D. 1,740 ft.; W.O.O.

Critchett & Woods No. 2 La. Cen. Lbr. Co., NW cor. NW SE sec. 18-11-3e. T.D. 1,395 ft.; S.D.

Catahoula Parish

J. Ray McDermott No. 1 La. Cen. Lbr. Co., 400 ft. S and E, NW cor. sec. 15-10-5e. Drlg.

Claiborne Parish

E. T. Oakes No. 1 H. W. Patton, NE cor. sec. 1-20-5. Jkd. old hole 4,242 ft.; drlg. 4,160 ft.; top Anhy. 3,829 ft.

United Gas Public Service Co. No. 2 Durfett, 660 ft. N and 1,980 ft. E, SW cor. sec. 31-20-5. Drlg. 7,600 ft.; hd. sd. and sh.

Concordia Parish

Zeni Oil Co. No. 1 Young, 1,200 ft. W, 100 ft. N, SE cor. sec. 28-6n-8e. S.D. 1,130 ft.

De Soto Parish

J. E. Carlson No. 1 A. P. Garland, 250 ft. S and E, NW cor. SW sec. 7-14-14. Drlg.

J. G. Carson No. 1 C. J. McMichael, sec. 26-12-15. Drlg.

A. G. Halbach et al No. 1 Staton, 150 ft. N and E, SW cor. SE sec. 29-13-14. D.&A. 4,003 ft.

W. F. Hyde et al No. 1 Ramsey, 330 ft. N and W of C sec. 36-11-11. O.W.D.D.; drlg. 300 ft.

R. C. Payne No. 1 Harris, sec. 11-13-14. Drlg. 1,672 ft.

E. A. Stiller No. 1 Jenkins, 400 ft. S and 200 ft. W, NE cor. NW NE sec. 35-13-12. T.D. 2,490 ft.; arg. to tst.

Grant Parish

Acadian Prod. Corp. No. 8 Swope, 150 ft. S and E, NW cor SE SE sec. 18-9-1e. Drlg. 1,100 ft.

Alexander et al No. 1 Maxwell, sec. 9-9-1e. W.O.S.R. 1,538 ft.

W. B. Rhineck, Tr., No. 1 Swope, SW cor. NW SW sec. 16-9-1e. Drlg. 1,580 ft.

Taw Oil Co. No. 2 Bradford, sec. 16-9-1e. Test dry 1,558 ft.; D.D.

Taw Oil Co. No. 1 Bradford, NE cor. NW sec. 16-9-1e. Set 10-in. 60 ft.; S.D.

Tri-State Leg. & Dev. Co. No. 1 Ethridge, 600 ft. S and 300 ft. W, NE cor. sec. 19-7-3w. R.U.

Jackson Parish

G. W. Zeigen No. 5 La. Cen. Lbr. Co., sec. 13-14-2w. T.D. 1,770 ft.; O.W.D.D.; R.U.

La Salle Parish

Montague Oil Co. No. 7-A Zenonia Lbr. Co., NE cor. sec. 10-9-1e. Tstd. S.W. and W.O. 1,520 ft.

Lincoln Parish

Caldwell Land & Timber Co. No. 1 J. K. Hammons, 330 ft. S and E, NW cor. SE SW sec. 30-18-1w. S.D. 665 ft.

Herman L. Brown et al No. 1 S. Gardner, 230 ft. N, 330 ft. E, SW cor. NW NE sec. 10-17-4w. Cg. 6,323 ft.; l. and sh.

Morehouse Parish

J. B. Collins et al No. 1 E. M. Clarke, SE NE sec. 10-20-7e. Drlg.

John E. Farrell No. 18 State, 198 ft. S and 1,753 ft. E, NW cor. sec. 9-21-4e. Comp.; 5,000,000 ft. gas; 390 lbs. R.P.; T.D. 2,135 ft.

John E. Farrell No. 19 State, 2,009 ft. N and 2,016 ft. E, SW cor. sec. 4-21-4e. Comp.; 2,500,000 ft. gas; 940 lbs. R.P.; T.D. 2,135 ft.

John E. Farrell No. 21 State, 1,507 ft. N and 2,121 ft. E, SW cor. sec. 33-22-4e. Comp.; 4,000,000 ft. gas; T.D. 2,135 ft.

John E. Farrell No. 22 State, 1,646 ft. S and 346 ft. E, NW cor. sec. 33-22-4e. R.U.

John E. Farrell No. 23 State, 1,341 ft. N and 3,547 ft. E, NW cor. sec. 29-22-4e. R.U.

John E. Farrell No. 24 State, 1,493 ft. S and 2,453 ft. E, NW cor. sec. 29-22-4e. R.U.

United Gas Pub. Ser. Co. No. 24 Tensas, 1,320 ft. W and 664 ft. N, SE cor. sec. 3-21-4e. Cmt. 6-in. 2,093 ft.; W.O.C.S.

United Gas Pub. Ser. Co. No. 25 Tensas, 1,418 ft. W and 1,342 ft. S, NE cor. sec. 29-22-4e. R.U.

United No. 17 Tensas, 1,320 ft. N and 1,-317 ft. W, SE cor. sec. 26-22-4e. Drlg.

United No. 18 Tensas, 1,320 ft. S and 1,317 ft. W NE cor. sec. 35-22-4e. Drlg.

United No. 23 Tensas, 2,559 ft. W and 1,-389 ft. S, NE cor. sec. 20-22-4e. Cmt. 7-in. 1,904 ft.

United Gas Pub. Ser. Co. No. 26 Tensas, 1,994 ft. W and 1,101 ft. N, SE cor. sec. 4-21-4e. 10-in. at 151 ft.; 6-in. 2,087 ft.

United No. 27 Tensas, 1,288 ft. N and 660 ft. W SE cor. sec. 4-21-3e. Drlg.

United No. 28 Tensas, 1,985 ft. W fr. SE cor. NE sec. 3-21-4e. Drlg.

Natchitoches Parish

C. D. Morrison No. 1 Moffitt, 250 ft. N, 250 ft. W, SE cor. sec. 19-10-10. Drlg.

Red River Parish

Byrd Explo. Co. No. 1 Edge, NE¼, SE¼, sec. 29-13-11. Test 2,479 ft.; dry; T.D 2,499 ft.; rg. sd. pmp. 2,499 ft.

Byrd Explo. Co. No. 1 Waller, 1,570 ft. N and 1,520 ft. W, SE cor. sec. 20-13-11. Drlg. 1,856 ft.; 250,000 ft. gas at 860 ft.; S.W. flow 1,600 ft.

W. J. Hunter et al No. 1 Long Bell Lbr. Co., NE NE sec. 19-13-9. Drlg. 2,653 ft.

T. G. Shaw No. 1 Teekell, SE cor. SE SW sec. 34-13-10. T.D. 2,830 ft.; 6-in. cmt. 2,500 ft.

Richland Parish

J. S. Morrisey No. 1 Jones, 1,293 ft. N, 636 ft. E, SW cor. sec. 15-18-7e. Cg. sdy. sh. 2,006 ft.

Arthur Wray No. 1 Slocum, 2,436 ft. S. 560 ft. W, NE cor. sec. 10-17-6e. Drlg. 2,480 ft.

Sabine Parish

I. J. Allen No. 1 Paul, sec. 34-9-14. R.U.

Circle W. Oil Co. No. 1 Cassell, 660 ft. E and 418 ft. S, C sec. 30-9-13. T.D. 1,778 ft.; acidized; bailing to test.

M. C. Forsman No. 1 Patrick, NE SW sec. 21-9-13. Set 8-in. 75 ft.; drlg. 1,426 ft.

F. G. Cox No. 1 Whitney Corp., C NW NE sec. 8-9-13. Drlg. 3,234 ft.

Hunter Co. No. 39 4-L Co., sec. 33-8-11. 10-in. set 50 ft.; drlg. 1,180 ft.

Pearl Oil Co. No. 6 Crawford, C SE SE sec. 20-9-13. Drlg. 3,115 ft.

J. R. Keen No. 1 Long Bell, 276 ft. N and 288 ft. W, SE cor. NE SW sec. 4-22-36. Set 8-in. 1,645 ft.; W.O.C.S.

O. S. McKnelly No. 3 Henderson, sec. 29-9-13. Drlg.

A. C. Scott No. 1 Bowman Hicks, 660 ft. S and 330 ft. E, NW cor. NW SW sec. 23-9-13. T.D. 1,607 ft; cmtd. 7-in. 1,-595 ft.

Claude H. Smith No. 1 Whitney Corp., 330 ft. S, 990 ft. W, NE cor. sec. 19-10-13. S.D. 3,150 ft.

A. H. Tarver No. 2 Baker, NW cor. NE sec. 36-8-12. D.S. stuck 5,200 ft.

Tensas Parish

H. M. Jones et al No. 1 Chicago Mill & Lbr. Co., NE cor. sec. 30-12-10e. T.D. 780 ft.; cmtd. 8-in. 766 ft.

Union Parish

Boucher & Pace No. 1 Frost-Johnson, NE NE sec. 27-21-1e. T.D. 4,515 ft.; D.&A.

Carbon Cons. No. 1 So. Carbon Co., 853 ft. S, 770 ft. E, NW cor. sec. 11-21-3e. T.D. 2,192 ft.; 1,000,000 ft. gas; R.P. 865 lbs.; comp.

John E. Farrell No. 20 State, 988 ft. S and 4,261 ft. E, NW cor. sec. 4-21-4e. T.D. 2,135 ft.; 6,000,000 ft. gas; 950 lbs. R.P.; comp.

Innerstate Natural Gas Co. No. 47 fee, 2,075 ft. S, 660 ft. W, NE cor. sec. 22-20-3e. 12-in. cmt. 193 ft.

Southern Carbon Co. No. 9 Grayling, 1,-260 ft. N and 1,954 ft. W, SE cor. sec. 8-21-4e. T.D. 2,145 ft.; 11,000,000 ft. gas; 910 lbs. R.P.; comp.

Southern Carbon Co. No. 10 Grayling, 1,-261 ft. N and 660 ft. E, SW cor. sec. 9-21-4e. R.U.

United Carbon Co. No. 4 Stovall, 1,698 ft. E and 2,201 ft. N, SW cor. sec. 33-21-4e. Drlg. 756 ft.

Vernon Parish

Llano Del Rio Co. No. 2 Gulf Lbr. Co., 1,-285 ft. S, 1,060 ft. W, NE cor. sec. 7-1n-9w. T.D. 3,240 ft.; D.&A.

Webster Parish

J. H. Edwards No. 1 Hooper, 330 ft. S and E, NW cor. SW sec. 8-17-9. T.A. 3,016 ft.; S.D.

J. P. Evans et al No. 1 T. Crichton, NE SE sec. 35-18-9. T.D. 5,589 ft.; gas 80,-000,000 to 100,000,000 ft.; distillate 10 B.P.D.; tstg.

Red Hawk Oil Co. No. 1 Mayfield, sec. 9-23-9. 10-in. set 90 ft.; W.O.C.S.

Ohio Oil Co. No. 1 R. L. Holloway, 660 ft. S, 760 ft. W, C sec. 33-21-10. Drlg. 8,215 ft.; D.S.T. 8,125-45 ft.; est 25,000,-000 ft. gas; 25-ft. sd.

L. R. Skidmore No. 1 Barnett, sec. 29-17-9. R.U.

SOUTH LOUISIANA FIELDS

Bay St. Elaine—Terrebonne Parish

Texas Co. No. 12 State-Bay St. Elaine, sec. 20-22s-18e. 13⅜-in. csg. at 1,891 ft. W.O.C.

Black Bayou—Cameron Parish

Shell Pet. Corp. No. 32 Watkins, sec. 7-12s-12w. Drlg. stky. sh. with streaks of lime 4,381 ft.

Caillou Island—Terrebonne Parish

Texas Co. No. 36 State. T.D. 6,117 ft.; P.B. 2,508 ft.; sdtk. at 2,526 ft. Drlg. sh. and lime 2,982 ft.

Texas Co. No. 42 State, sec. 47-23s-20e. T.D. 3,926 ft.; P.B. 3,100 ft.; drlg. hd. shale and lime at 3,264 ft. in sdtk. hole.

Cameron Meadows—Cameron Parish

Burton Sutton Oil Co. No. 13 School Land, sec. 16-14s-13w. T.D. 5,924 ft. S.D.

Burton Sutton No. 14 School Land, sec. 16-14s-13w. Drlg.

Burton-Sutton No. 3-A School Land, sec 16-14s-13w. T.D. 3,951 ft.; P.B. and sdtkd. at 3,308 ft.

Humble-Magnolia No. 17 Cameron Meadows, sec. 21-14s-13w. Drlg.

Cheneyville—Rapides Parish

Texas Co. No. 1 Weihl, sec. 53-1s-2e. T.D. 5,677 ft.; top oil sd. 5,658 ft.; 7 min. D.S.T. from 5,638-77 ft., ⅜-in. choke on top, ¼-in. on bottom, made 11 bbls. P.L.O., 475 lbs. pressure, cmtd. 7-in. csg. at 5,645 ft.

Choctaw Dome—Iberville Parish

Standard Oil Co. No. 8 Myrtle Grove Wilbert, sec. 52-9s-11e. T.D. 5,828 ft.; P.B to 2,450 ft. and sdtkd. Drlg. sdy. lime 5,094 ft.

Darrow—Ascension Parish

Humble O. & R. Co. No. 4 Community, sec. 33-10s-2e. Drk.

Humble O & R. Co. No. 7 Gumble, 10¾-in. csg. at 1,945 ft.; drlg. shale 1,984 ft.

Fausse Point—Iberia Parish

Texas Co. No. 2 State, sec. 35-11s-8e. Drlg. sdy. sh. 2,363 ft.

Dog Lake—Terrebonne Parish

Texas Co. No. 3 State, sec. 5-22s-16e. T.D. 7,613 ft.: P.B. and sdtkd. at 5,010 ft.; drlg. sdy. sh. and shells 6,007 ft.

Garden Island—Plaquemines

Texas Co. No. 19 Garden Isle, sec. 37-23s-33e. T.D. 4,841 ft.; P.B. and drlg. in sidetracked hole 4,630 ft.

Gillis—Calcasieu Parish

R. Dobbs et al No. 1 Buhler, sec. 11-9s-8w. Drlg. 4,645 ft.

Fohs Oil Co. No. 11 O. H. Castle, sec. 13-9s-8w. T.D. 7,068 ft.; 7-in. csg. on bottom.

Fohs Oil Co. No. 1 Henry Powers, sec. 14-9s-8w. Drlg.

Texas Co. No. 9 Nickerson fee, sec. 13-9s-8w. T.D. 6,752 ft.; I.P. 540 B.P.D., 17/64 inch choke, T.P. 510 lbs.

Texas Co. No. 10 Nickerson fee, sec. 12-9s-8w. Drk.

Union Sulphur Co. No. 7 Barbe, sec. 11-9s-8w. Drlg. gumbo 2,915 ft.

Union Sulphur Co. No. 1 J. A. Bel estate. T.D. 7,683 ft.; P.B. to 6,522 ft.; sdtkd. wtr. sd. 7,058 ft. No report.

Union Sulphur Co. No. 1 G. S. Cole, sec. 12-9s-8w. T.D. 5,287 ft.; swabbing.

Union Sulphur Co. No. 1 Green Acres, sec. 11-9s-8w. T.D. 7,659 ft.; P.B. to 4,-450 ft.; sidetracking sand 4,992 ft.

Union Sulphur Co. No. 8 Powell Lbr. Co. T.D. 6,730 ft.; I.P. 450 B.P.D.

Union Sulphur Co. No. 15 State, sec. 12-9s-8w. Drk.

Union Sulphur Co. No. 16 State, sec. 11-9s-8w. T.D. 6,754 ft.; I.P. 504 B.P.D., ¼-in. choke, T.P. 530 lbs.

Hackberry—Cameron Parish

Stanolind O. & G. Co. No. 16-A School Land, sec. 16-12s-12w. Drlg. shale 5,170 ft.

Stanolind O. & G. Co. No. 23-B Gulf Land, sec. 14-12s-10w. Rig up.

Texas Co. No. 21 State, sec. 12-12s-10w. Drk.

Texas Co. No. 19-B State, sec. 13-12s-9w T.D. 6,724 ft.; P.B. to 4,638 ft.; sdtkd.; drld. to 5,307 ft.; P.B. and sdtk. 4,928 ft.; T.D. new hole 5,070 ft. fishing.

Jeanerette—St. Mary Parish

Herton Oil Co. No. 2 Banta, sec. 40-13s-9e. Coring sdy. sh. 3,520 ft.

Herton Oil Co. No. 4 Banta, sec. 40-13s-9e. Drlg. hd. sh. and lime 6,580 ft.

Herton Oil Co. No. 1 Carter, sec. 33-13s-8e. T.D. 9,602 ft.; to run 5-in. csg.

Jennings—Acadia Parish

Reed Crude Oil No. 10 Heywood, sec. 41-9s-2w. T.D. 1,255 ft.

Shell Pet. Corp. No. 1 Conover, sec. 40-9s-2w. T.D. 7,505 ft. shale, reaming.

Stanolind O. & G. Co. No. 16 Houssiere-Latrielle, sec. 47-9s-2w. T.D. 7,052 ft.; cutting and pulling stuck drill stem.

Lafitte—Jefferson Parish

Texas Co. No. 4 Lafitte, sec. 20-17s-24e. T.D. 9,213 ft.; fsg.

Texas Co. No. 4 Rigolettes Fur Co., sec. 29-17s-24e. T.D. 8,722 ft.; fsg.

Lake Barre—Terrebonne Parish

Texas Co. No. 37 Lake Barre State. Drlg. hd. sd. with streaks hd. sdy. sh. 6,649 ft.

Texas Co. No. 40 State, sec. 36-21s-19e. Drlg. hd. sdy. sh. and lime 3,546 ft.

Lake Hermitage—Plaquemines Parish

Gulf Oil Corp. No. 5 LaFourche Basin Levee Bd., sec. 11-18s-25e. T.D. 5,100 ft.; P.B. 3,450 ft.

Leesville—LaFourche Parish

Delta Oil Co. No. 1 Constantine, sec. 34-21s-22e. T.D. 5,043 ft.; 7-in. csg. at 5,009 ft.; S.D.

Lincoln Oil Co. No. 2 Constentine, sec. 27-21s-22e. T.D. 5,133 ft.; salt; P.B. 3,728 ft.; T.D. S.T. hole 4,783 ft. D.&A.

Lincoln Oil Co. No. 9 State, sec. 34-21s-22e. Bldg. derrick.

Texas Co. No. 48 Leesville, sec. 27-21s-22e. Drk.

Texas Co. No. 49 Leesville, sec. 22-21s-22e. T.D. 3,902 ft.; 7⅝-in. csg. 3,887 ft. W.O.C.

Texas Co. No. 53 L.L.&E., sec. 34-21s-22e. 10¾-in. csg. at 785 ft. W.O.C.

New Iberia—Iberia Parish

Canal Oil Co. No. 3 Sabatier, sec. 54-1s-7e. S.D. 3,180 ft.; in salt.

Kitos Oil Co. No. 2-A Sealey, sec. 56-12s-7e. T.D. 4,560 ft.; P.B. to 2,200 ft.; S.D.

Teche Oil Co. No. 1 Schwing, sec. 52-12s-7e. P.B. and sdtkd. Drlg. 2,400 ft. in sh.

Roanoke—Jefferson Davis Parish

Gulf Oil Corp. No. 2-B Anding, sec. 2-9s-4w. Drlg. shale 8,634 ft.

Humble O. & R. Co. No. 4-B Devilbiss, sec. 11-9s-4w. Drlg. shale 8,211 ft.

Shell Pet. Corp. No. 3 Carter, sec. 1-9s-4w. Drlg. sand 6,163 ft.

Port Barre—St. Landry Parish

Pan American Prod. Co. No. 2 Colmier, sec. 4-6s-5e. Drlg. hd. sh. and lime 5,099 ft.

Texas Co. No. 1 Futral, sec. 20-4s-5e. T.D. 5,997 ft.; cemented whipstock 3,754 ft. W.O.C.

Texas Co. No. 1 Lahaye, sec. 4-6s-5e. T.D. 4,455 ft.; set whipstock 4,010 ft. Drlg. sd. and lime in sdtkd. hole.

St. Martinville—St. Martin Parish

Continental Oil Co. No. 1 fee, sec. 18-11s-6e. T.D. 8,150 ft.; tested salt wtr.; to drill deeper.

Sorrento—Ascension Parish

Sorrento Oil Co. No. 1 Bernard, sec. 9-12s-4e. Derrick.

Sulphur—Calcasieu Parish

Union Sulphur Co. No. 325 fee, sec. 29-9s-10w. No report.

Union Sulphur Co. No. 330 fee, sec. 29-9s-10w. Drk.

Tepetate—Acadia Parish

Continental Oil Co. No. 1 Doris Fruge, sec. 28-7s-2w. T.D. 1,522 ft., 10¾-in. csg. at 1,489 ft. W.O.C.

Continental Oil Co. No. 3 Homeseekers, sec. 29-7s-2w. T.D. 8,320 ft.; I.P. 402 bbls. in 21 hours, 11/64-in. choke, C.P. 1,300 lbs., T.P. 1,150 lbs.

Continental Oil Co. No. 4 Homeseekers, sec. 39-7s-2w. Coring oil sand 8,321 ft.

Continental Oil Co. No. 2 Ortego, sec. 28-7s-2w. T.D. 8,312 ft., flowed 101 lbs. in 12 hours, cutting and pulling tubing.

Continental Oil Co. No. 2 L. L. Welch, sec. 28-7s-2w. T.D. 8,316 ft.; 5¾-in. csg.; I.P. 174 B.P.D., 5/32 inch choke, C.P. 2,150 lbs., T.P. 1,700 lbs.

Vinton—Calcasieu Parish

Vinton Pet. Co. No. 1 fee, sec. 24-10s-12w. Coring sand 3,757 ft.

White Castle—Iberville Parish

Shell Pet. Corp. No. 3 Shingle, 650 ft. S. 600 ft. E of NW cor. sec. 12-11s-12e. Coring shale 5,921 ft.

S. LOUISIANA WILDCATS

Acadia Parish

Magnolia Pet. Co. No. 1 Homeseekers Dev. Co., sec. 54-10s-1w. Drlg. stky. shale 8,937 ft.

Allen Parish

Humble O. & R. Co. No. 2 Bell est., 933 ft. N and E of sec. 28-6s-7w. Drlg. shale 3,004 ft.

Avoyelles Parish

Frost Oil Co. No. 1 Hines Lumber Co., sec. 3-3n-4e. Drk.

Calcasieu Parish

Buhler Oil Co. No. 2 Faizst, sec. 26-8s-10w. Old T.D. 4,412 ft.; P.B. to 2,000 ft.; sdtkd.; drlg. 3,495 ft.

Cameron Parish

Magnolia Pet. Co. No. 1 Hebert, sec. 13-12s-9w. Drlg. sh. and lime 8,423 ft.

East Baton Rouge Parish

Cavalier Oil Co. No. 1 Vingnes, sec. 40-8s-2e. R.U.

East Feliciana Parish

East Feliciana Oil No. 1 West & Budding, sec. 37-1s-1w. Spudded 15 ft. in clay.

Iberia Parish

Jefferson Lake Oil Co. No. 1 State, Twp. 12s-5e. T.D. 8,610 ft.; P.B. to 8,483 ft.; perf. from 8,460-66 ft.; P.B. to 8,183 ft.; P.B. again and milling out at 5,670 ft.

Jefferson Lake Oil Co. No. 322 State Lake Piegneur. T.D. 5,690 ft., milling out at 4,426 ft.

Texas Co. No. 1-B State, Vermillion Bay, sec 20-15s-6e. Moving in and driving piling.

Jefferson Davis Parish

Shell Pet. Corp. No. 1 Lacassan, sec. 20-11s-5w. T.D. 9,844 ft.; D.S. stuck, Fsg.

Stanolind O. & G. Co. No. 1 C. E. Britt, sec. 15-10s-3w. T.D. 165 ft.; clay and gravel, fishing.

Strake Oil Corp. No. 1 Onezia Miller Est., sec. 7-9s-5w. Drlg. hd. sd. 6,045 ft.

Livingston Parish

Bunte O. & G. Co. No. 1 Addison Trust Co., sec. 7-7s-3e. Drk.

St. Bernard Parish

John Cartwright No. 1 Meraux Nunez, sec. 19-13s-12e. Drlg. stky. shale 1,940 ft.

St. James Parish

Shell Pet. Corp. No. 1 Colonial Sugar, sec. 5-12s-5e. T.D. 7,522 ft.; top salt 7,492 ft.; S.D.

St. Martin Parish

Texas Co. No. 2 State, sec. 14-10s-3e. Drlg. stky. shale 6,078 ft.

Texas Co. No. 8 St. Martins Land, sec. 17-8s-7e. T.D. 8,213 ft.; D.S. stuck; sdtkd. at 7,500 ft.; drlg. 7,609 ft.

Terrebonne Parish

J. B. Beck et al No. 1 Realty Operators, sec 103-17s-17e. Drlg. clay 30 ft.

Humble O. & R. Co. No. 1 Continental Land & Fur Co., sec. 30-17s-14e. T.D. 2,526 ft.; P.B. to 1,050 ft.; sidetracked at 1,145 ft.; drlg. sd. 2,545 ft.

Vermillion Parish

Continental Oil Co. No. 1 O. C. Hebert, sec. 20-12s-3e. Drlg. hard lime 9,313 ft.

Del-Shell Exploration Co. No. 1 Landry heirs, sec. 1-13s-4e. Drlg. sh. 1,320 ft.

Louisiana Land & Expl. Co. No. 1 La. Fur Co., sec. 16-15-1e. Drk.

Stratton Ridge—Brazoria County

Warner Oil Co. No. 3 Dannenbaum, J. D. Grace Sur. S.D. at 1,250 ft.

West Columbia—Brazoria

Texas Co. No. 13 Abrams, George Tennille Sur. Drlg. shell, shale, and lime 2,990 ft.

Texas Co. No. 85 Hogg, Geo. Tenille League. Drk.

Heyser—Calhoun County

Humble O. & R. Co. No. 2 Welder, Jose Maria Rios Sur. Spudded.

Anahuac—Chambers County

Gulf Oil Corp. No. 2 Knowles. M.I.R.

Humble O. & R. Co. No. 5 Broussard & Hebert, H.&T.C. Sur. T.D. 7,150 ft.; P.B to 6,799 ft.; sdtkd. at 6,786 ft.; drilled to 6,978 ft.; 7-in. csg. at 6,953 ft.; I.P. 14.9 B.P.H.; ¼-in. ck.; T.P. 575 lbs.; C.P. 1,475 lbs.

Humble O. & R. Co. No. 8 J. E. Broussard, H.&T.C. Sur., sec. 63. 10¾-in. csg. at 1,506 ft.; drlg. sh. 1,709 ft.; T.D.

Humble O. & R. Co. No. 2 C. A. Lord, H.&T.C. Sur., sec. 50. 10¾-in. csg. at 1,521 ft.; drlg. sh. 5,142 ft.

Humble O. & R. Co. No. 17 Middleton, H. T.&C. Sur. T.D. 7,235 ft.; D.S.T. from 7,225-35 ft.; ¼-in. ck.; recovered 120 ft oil, 30 ft. oil and mud, 452 ft. mud.

Humble O. & R. Co. No. 18 Middleton, H. T.&C. Sur. D. and A. 7,386 ft.

Humble O. & R. Co. No. 21 Middleton, H. &T.C. Sur., sec. 56. 10¾-in. csg. at 1,527 ft.; drlg. sh. 5,452 ft.

Humble O. & R. Co. No. 8 Tyrell, H.T.& C. Sur. Sand 7,000-82 ft., 7-in. csg. at 7,043 ft.

Humble O. & R. Co. No. 11 White, James McGahey Sur. Drlg. shale 7,000 ft.

Humble O. & R. Co. No. 1-B White, James McGahey Sur. Drlg. shale 7,089 ft.

Sun Oil Co. No. 15 White J. McGahey Sur. T.D. 7,100 ft., fishing.

Sun Oil Co. No. 17 White, James McGahey Sur. Drk.

Sun Oil Co. No. 13 White, J. McGahey Sur. T.D. 7,088 ft.; 7-in. csg. at 7,040 ft. I.P. 27.03 bbls. 1st hr., T.P. 1,075 lbs., C.P. 1,200 lbs.

Sun Oil Co. No. 19 White, James McGahey Sur. 16-in. csg. at 77 ft.

Turtle Bay—Chambers County

Stanolind O. & G. Co. No. 2 State. T.D. 6,617 ft.; 7-in. csg. at 6,608 ft.; I.P. 80 B.P.D., ⅝-in. choke. T.P. 250 lbs., C.P. 400 lbs.

Big Creek—Fort Bend County

Gulf Oil Corp. No. 69 Davis, B. Young League. Drlg. sd. 3,918 ft.

Blue Ridge—Fort Bend County

H. G. Frost et al No. 1 Robinson, H. Shropshire Sur. T.D. 3,666 ft.; P.B. to 2,900 ft.; no report.

Trans-State Oil Co. No. 4-B Blakely, E. Drew Sur. No report.

Orchard—Fort Bend County

Gulf Oil Corp. No. 46 Moore, Leo Burknapp Sur. Drlg. sh. and lime 2,807 ft.

Gulf Oil Corp. No. 5-A Moore, S.D. 1,562 ft. No report.

Thompson—Fort Bend County

Naylor et al No. 8 Gehr, S. Kennedy Sur. S.D. 4,421 ft.

Sterling O. & R. Co. No. 1 F. I. Booth, H. Chrisman Sur. T.D. 5,407 ft.; 7-in. csg. at 5,320 ft.; swbd.; would not flow; R.U. to pump.

High Island—Galveston County

Stanolind O. & G. Co. No. 56 Cade, N. Fitzsimmons Sur. Drlg. shale 6,289 ft.

Stanolind O. & G. Co. No. 57-A Cade, N. Fitzsimmons Sur. R.U.

Stanolind O. & G. Co. No. 1 Cooper, M. Dunman Sur. T.D. 5,341 ft., prep. to core.

Stanolind Oil & Gas Co. No. 18-B Smith Royalty, M. Dunman Sur. T.D. 5,539 ft.; P.B. 3,650 ft.; sdtkd. at 4,022 ft.; drld to 5,024 ft., swabbing wash water and oil.

Dickinson—Galveston County

Humble O. & R. Co. No. 3 Magale, J. S. Jones Sur. T.D. 7,994 ft.; 7-in. at 7,980 ft. I.P. 38 B.P.H., ¼-in. choke, T.P. 1,550 lbs., C.P. 1,600 lbs.

Humble O. & R. Co. No. 2-A Stewart, J. Sellers Sur. Drlg. sand 7,797 ft.

Humble O. & R. Co. No. 3-B Bayou Dev. Co., J. Sellers Sur. 11 min. D.S.T. from 8,138-52 ft. Rec. 540 ft. gas cut mud. Drlg. shale 8,309 ft.

Ken Ben Oil Co. No. 1 Stewart, W. E. Wilson Sur. T.D. 8,689 ft.; 7-in. csg. at 8,621 ft., to perforate.

Stanolind O. & G. Co. No. 4 State, Tr T.D. 8,125 ft., top sand at 8,107 ft.; P.B. 8,000 ft. W.O.C.

Stanolind O. & G. Co. No. 5 State, Tract 8. Coring hd. sdy. sh., 9,096 ft.

Batson—Hardin County

Nimrod Prod. Co. No. 1 Butler, W. Donoho Sur. S.D. 3,605 ft.

Saratoga—Hardin County

Rio Bravo Oil Co. No. C-151 Cotton Tract. Drlg. sdy. shale 331 ft.

Mykawa—Harris County

West Prod. Co. No. 9 Irwin, W. B. Walker Sur. T.D. 5,140 ft.; no report.

West Prod. Co. No. 1 Minnetex, Wm. Lovett Sur. No report.

Pierce Junction—Harris County

Rio Bravo Oil Co. No. 14-B Settegast, J. Kappman Sur. T.D. 3,784 ft., 7-in. on bottom. W.O.C.

Gulf Oil Corp. No. 4 Manchester. Drlg. hd. shale and lime 3,699 ft.

South Houston—Harris County

Schwab & C. & C. Drlg. Co. No. 1 Williams. Drlg. 1,000 ft.

Smith & McDannald No. 1 Merridith, H. T.&B. Sur. No. 6. Coring 4,035 ft.

Stanolind O. & G. Co. No. 1 Minnie Barrett, H.T.&B. Sur. No. 6. Drlg. sd. and sh. 840 ft.

Stanolind O. & G. Co. No. 1 M. Buts, H.T.&B. Sur. No. 6. Drlg. hd. sdy. sh. 4,756 ft., 10¾-in. csg. at 1,505 ft.

Stanolind O. & G. Co. No. 1 Funk, Callahan & Vince Sur. T.D. 5,014 ft.; P.B. to 4,534 ft.; I.P. 98 B.P.D., ¼-in. choke, T.P. 50 lbs., C.P. 450 lbs.

Stanolind O. & G. Co. No. 4 Howard, H. T.&B. Sur. No. 6. Drk.

Stanolind O. & G. Co. District 24, H.T.&B. Sur. No. 5. Drlg. sd. and lime 4,490 ft.

Stanolind O. & G. Co. No. 3 First Natl. Bank, Callahan-Vince Sur. Drlg. stky. shale 4,636 ft., 10¾-in. csg. 1,472 ft.

Stanolind O. & G. Co. No. 2 Schwartz, H. T.&B. Sur. T.D. 3,708 ft.; P.B. to 1,958 ft.; drlg. stky. sh. and lime 2,700 ft.

Stanolind O. & G. Co. No. 1 C. J. Wysdelts, H.T.&B. Sur. No. 6. Drlg. shale 4,500 ft.

Tomball—Harris County

Amerada-Stanolind No. 3 Felber, E. Smith Sur. D.&A. at 5,601 ft.

Humble O. & R. Co. No. 1-B Juergens, J. House Sur. Sand 5,556-72 ft.; 7-in. csg. at 5,568 ft.; completed, no gauge.

Humble O. & R. Co. No. 4 Milo, C. N. Pillot Sur. Cemented 7-in. csg. 5,552 ft.

Humble O. & R. Co. No. 4 Moody, J. Edwards Sur. T.D. 5,586 ft.; 7-in. csg. 5,574 ft. I.P. 99 B.P.D., ¼-in. choke, T.P. 1,700 lbs., C.P. 2,050 lbs.

Humble O. & R. Co. No. 5 F. Treischel, J. House Sur. Drlg. shale 1,400 ft.

Texas Co. No. 2 Sam Lewis, C. N. Pillot Sur. T.D. 5,573 ft.; 7-in. at 5,552 ft., I.P. 2,236,000 ft. gas, 15/64 inch choke, T.P. 1,200 lbs., C.P. 1,000 lbs.

Amelia—Jefferson County

H. J. De Arman No. 1 First National Bank, F. Bergner Sur. 1-A. Drlg. shale 6,090 ft.

Humble O. & R. Co. No. 2 Guinn, C. Williams Sur. T.D. 6,776 ft., perforated csg. 6,771-74 ft. with 9 holes.

Humble O. & R. Co. No. 2 M. E. Langham, 10¾-in. csg. at 2,000 ft.; drlg. shale 5,123 ft.

Glenn H. McCarthy, Inc., No. 1 Langham, H. Williams Sur. T.D. 5,855 ft., reaming.

Big Hill—Jefferson County

Stanolind O. & G. Co. No. 3-A Pipkin and Davis, Wm. McFaddin Sur. T.D. 6,500 ft.; D.S. stuck.

Fannett—Jefferson County

Gulf Oil Corp. No. 10 Burrell, W. H. Smith Sur. Rig.

Cleveland—Liberty County

Gulf Oil Corp. No. 15-C Cleveland, J. Pleasant Sur. Drlg. sand 5,862 ft.

Esperson—Liberty County

General Crude Oil Co. No. 26 Esperson, C. W. Fisher Sur. T.D. 3,097 ft., sand, running screen and tubing to complete.

Hankamer—Liberty County

Ucan Oil Co. No. 5 Ezzell, Levi Borrow Sur. No report.

Hardin—Liberty County

Jack Frazier et al No. 1 George Rearles, Amos Green Sur. D.&A. at 7,701 ft.

Hull—Liberty County

Gulf Oil Corp. No. 26 Morris-Phillips, O. Underton Sur. T.D. 4,523 ft.; I.P. 388 B.P.D., ¼-in. choke.

Republic-Houston No. 160 Dolbear, J. Devore Sur. M.I.R.

Van Vleck—Matagorda County

Skelly Oil Co. No. 8-B Cobb, M. Cummins Sur. T.D. 1,426 ft., drlg. plug.

Skelly Oil Co. No. 1 Langham, M. Cummings Sur. Coring sdy. shl. 7,690 ft.

Skelly Oil Co. No. 2 Metzler, M. Cummins Sur. Moving in.

Skelly Oil Co. No. 1 G. Moore, L&G.N. Sur. Drlg. sdy. sh. and lime 2,562 ft

Skelly Oil Co. No. 7-B Cobb, M. Cummings Sur. Drlg. hard sh. 5,726 ft.

Livingston—Polk County

Hawkeye Pet. Co. No. 1 W. F. Harder, A. Viesta Sur. Coring shale 3,950 ft.

Humble O. & R. Co. No. 27 C. B. Granburg, A. Viesca Sur. Drlg. shale 4,108 ft.

Greta—Refugio County

Hewitt & Daugherty No. 24 Lambert, Hardwick Sur. T.D. 5,917 ft.; no report.

Refugio—Refugio County

D. & D. Oil Co. No. 3, Heard townsite. T.D. 4,922 ft.; no report.

Local Oil Co. No. 1 Rhea, Refugio Town Tr. S.D. 650 ft.

United Gas Co. No. 12 Fannie Heard, Refugio townsite. No report.

United Gas Co. No. 18 Fox, Hughes & Brown Sur. T.D. 5,880 ft.; no report.

Tomoconnor—Refugio County

Quintana Pet. Co. No. 36-A Tom O'Connor, Swisher Sur. Drlg. sh. 5,250 ft.

Coletto Creek—Victoria County

American Liberty Oil Co. No. 4 Pribil, R. Manchola Sur. T.D. 2,912 ft. hd. shale.

Keeran—Victoria County

Gulf Oil Corp. No. 8 Keeran, DeLeon Sur. T.D. 6,444 ft.; P.B. to 6,165 ft.

TEXAS

Week Ending June 13

GULF COAST FIELDS

Raccoon Bend—Austin County

Humble O. & R. Co. No. 8 McCasland, Wm. Smithson Sur. T.D. 4,110 ft.; 7-in. csg. at 4,057 ft.; I.P. 48.6 B.P.H. T.P. 265 lbs., C.P. 425 lbs.

Humble O. & R. Co. No. 3-B Machemehl, Wm. Smeathers Sur. 10¾-in. csg. at 1,152 ft. Drlg. shale 3,100 ft.

Hastings—Brazoria County

Humble O. & R. Co. No. 5 C. A. Cannon, H.&T.B. Sur., sec. 36. 10¾-in. csg. at 1,883 ft.

Humble O & R. Co. No. 3 Nelson, H.T.&B, Sur. T.D. 6,050 ft.; 7-in. csg. at 5,940 ft.; I.P. 28.72 B.P.H., ¼-in. choke. T.P. 850 lbs.; C.P. 850 lbs.

Stanolind O. & G. Co. No. 5 Drake, H.T.&B. Sur. No. 36. 10¾-in. csg. at 1,848 ft.; W.O.C.

Stanolind O. & G. Co. No. 1 Brown, H.T. &B. Sur. T.D. 5,991 ft.; tested 633.27 B.P.D., ¼-in. choke; T.P. 940 lbs.; C.P. 900 lbs.

Stanolind O. & G. Co. No. 3 Ford, A.C.H.& B. Sur. No. 1 Drlg. hd. sd. 3,416 ft. 10¾-in. csg. at 1,868 ft.

Stanolind O. & G. Co. No. 1 Rosmussen & Moore, Moore and Rosmussen Sur. Drlg. shale 1,889 ft.; 10¾-in. csg. at 1,882 ft.

Stanolind O. & G. Co. No. 6 Shaw, H.T.&B. Sur. No. 36. Drk.

Stanolind O. & G. Co. No. 6 Turner, A.C. H.&B. Sur. No. 1 Coring hd. sd. 6,000 ft.

Stanolind O. & G. Co. No. 5 H. G. Williams, A.C.H.&B. Sur. Drlg. sh. 5,550 ft.

Old Ocean—Brazoria County

Harrison & Abercrombie No. 1 Armstrong Plantation fee, Polly and Chance Sur. Drlg. shale 4,907 ft.

Manvel—Brazoria County

Texas Co. No. 24-B Belcher, H. M. Little Sur. Drlg. sd., hd. lime streaks 3,310 ft.

Texas Co. No. 22 Houston Oil Field Assn., A.C.H.&B. Sur. No. 1. Drlg. sh. and lime 3,916 ft.

Texas Co. No. 4 Lieder (D.D.) T.D. 4,022 ft. in sd., 7-in. csg. at 3,971 ft.

Texas Co. No. 2 Smith, H.T.&B. Sur. P.B. to 4,054 ft., perforated with 40 shots from 4,045-51 ft., running screen.

Placedo—Victoria County

Barnsdall-American Liberty No. 3 Pickering-Roos, J. M. Brownson Sur. Drlg. shale 2,250 ft.

Parnsdall-American Liberty No. 4 Pickering-Roos, S.A.&M.G. Sur. Drlg. sh. and lime 4,290 ft.

Barnsdall-American Liberty No. 2 W. R. Smith, A. Murphy Sur. R.U.

Eastern Texas Pet. Co. No. 2 Hosek, J. M. Bronson Sur. Spudded.

Harrison & Abercrombie No. 3 Sturdevant, S.A.&M.G. Sur. Drlg. shale 3,100 ft.

Smith-Gulf No. 1-B Henderson and Pickering, S.A.&M.G. Sur. T.D. 4,785 ft.; 7-in. csg. at 4,772 ft.; swabbed, failed to flow, rocking.

Superior O. & G. Co. No. 10 Henderson & Pickering, J. M. Bronson Sur. Drlg. shale 840 ft.

Clay Creek—Washington County

Sun Oil Co. No. 6 Caraway, J. F. Perry Sur. T.D. 1,174 ft., 10¾-in. at 103 ft.

Sun Oil Co. No. 1 H. Lauter, N. Clay Sur. T.D. 5,951 ft.

Louise—Wharton County

Pure Oil Co. No. 6 Chas. T. Kauntze, Morris-Cummins Sur. No. 19; 16-in. csg. at 46 ft.

Pure Oil Co. No. 5 McIntyre, Morris-Cummins Sur. T.D. 5,055 ft., shale and hard sand.

Pure Oil Co. No. 1 Sara G. Shult, L. P. Ogden Sur. R.U.

Pickett Ridge—Wharton County

Adrian Moore No. 1 W. P. Wilbeck, J. Tele Foriner Sur. T.D. 4,703 ft.; coring deeper.

Edwards Drlg. Co. No. 1 E. D. Farmer, I.&G.N. Sur. No. 39. Rig.

Rio Bravo Oil Co. No. 1 T.&N.O. R.R. Co., I.&G.N. Sur. No. 33. Spudded.

Texas Co. No. 21-A Pierce, I.&G.N. Sur. No. 38. T.D. 4,712 ft.; 7-in. csg. at 4,705 ft. I.P. 265 bbls. in 12 hours, ¼-in. choke, T.P. 530 lbs., C.P. 600 lbs.

Texas Co. No. 22-A Pierce, I.&G.N. Sur. Drlg. shale and lime at 3,436 ft.

Texas Co. No. 23-A Pierce, I.&G.N. Sur. No. 38. Drlg. sd. 1,276 ft.

Texas Co. No. 24-A Pierce, I.&G.N. Sur. Rig.

Withers—Wharton County

Texas Co. No. 1-B Pierce, E.T.R.R. Sur., Abst. No. 108. T.D. 6,511 ft.; P.B. to 5,200 ft.; sdtkd. I.P. 2,000,000 ft. dry gas, ¼-in. choke, T.P. 1,800 lbs., C.P. 1,900 lbs.

Texas Co. No. 6-C Pierce, J. Caldwell Sur. T.D. 5,567 ft.; I.P. 18 B.P.H., ¼-in. choke; T.P. 475 lbs., C.P. 550 lbs.

Texas Co. No. 7-C Pierce, J. Caldwell Sur. T.D. 5,565 ft.; 7-in. csg. on bottom.

Texas Co. No. 8-C Pierce, Wm. Pettus Sur. Drk.

GULF COAST WILDCATS

Austin County

W. H. Mitchell et al No. 1 F. Fenner, J. Fitzgibbons Sur. Drk.

Brazoria County

Deep South Pet. Co. No. 1 Adams Hrs. & Dummick, A. A. Talmage Sur. T.D. 200 ft.; 10¾-in. csg. at 180 ft.

Gulf Oil Corp. No. 1 Fairfield, A. Robinson Sur. T.D. 8,398 ft.; sidetracked to 7,881 ft., reaming.

Straka Oil Corp. et al No. 1 D. K. Pool-J. W. Hardin Sur. T.D. 6,738 ft., hd. sh., 9⅝-in. csg. at 6,736 ft. W.O.C.

Texas Co. No. 3 Freeport Sulphur Co., C. Areola Sur. Cmtd. 9⅝-in. at 4,734 ft.; drlg. sticky shale 5,053 ft.

Calhoun County

Continental Oil Co. No. 1 Austin Estate, sec. 12, Blk. H. Drlg. stky. shale 4,476 ft.

Galveston County

Shell Pet. Corp. No. 1 Mace Stewart, Spillman Sur. Drlg. shale 2,472 ft.

Grimes County

Crook Bros. No. 1 W. W. and J. C. Greir. No report.

Hardin County

S. Hindman No. 1 Howth, A. J. Cotton Sur. S.D. 4,652 ft.

Republic-Houston Oil Co. No. 2 Burrell, A. A. Burrell Sur. No report.

Harris County

Amerada Pet. Corp. et al No. 1 Dopslous-C.W.R.R. Sur., Blk. 1, sec. 2. T.D. 7,320 ft.; 7-in. csg. at 6,866 ft.; I.P. 128 B.P.D., ½-in. choke, T.P. 2,350 lbs., C.P. 2,490 lbs.

Bunte O. & G. Co. No. 1 Lobit et al, Benjamin Barrow Sur. Drk.

Zeni Oil Co. No. 1 W. A. Perkins, A. Sherrell Sur. Drlg. 3,882 ft.

Houston County

Ellison & McBride No. 1 Bean, E. Stedman Sur. Drlg. chalk 5,515 ft.

Jefferson County

Magnolia Pet. Co. No. 1 Funches, sec. 16, H.T.&B. Sur. Drlg. shale, show gas 9,004 ft.

McSpadden et al No. 1 Burrell estate. Drlg. shale and shells 6,280 ft.

Shell Pet. Corp. No. 1 Carpenter, M. E. Piveto Sur. Drlg. sand 5,968 ft.

Sun Oil Co. No. 1 Herbert & Broussard, B. Blackman Sur., Abst. No. 2. T.D. 3,707 ft.; reaming.

Matagorda County

Pierce Estate Inc. No. 1 Fee, Wm. Brown Sur. Derrick.

Sun Oil Co. No. 1 Craig, Thomas Williams, Sur. T.D. 6,326 ft.; P.B. 5,850 ft.; perf. csg. 5,340-95 ft.; swbd. dry; perf. csg. from 5,240-95 ft.; P.B. to 5,180 ft., to perforate from 5,150-75 ft.

Montgomery County

W. O. Bilonski et al No. 1 J. W. Wood, Wm. Weir Sur. Drlg. 2,200 ft.

Walter Blumenthal No. 1 Delta Land & Timber Co., J. Beuhn Sur. T.D. sh. 4,011 ft.

Orange County

Tide Water Oil Co. No. 1 E. N. Brown, Mary Latham Sur. T.D. 1,108 ft.; 10¾-inch on bottom. W.O.C.

Polk County

Turnbull & Irwin No. 1 Mrs. Roberts, J. F. de Rumayor Sur. Drlg. hard sh. and lime 2,350 ft.

San Jacinto County

J. A. Deering No. 1 Randolph, V. Flores Sur. R.U.

Tyler County

McArthur & Mixon No. 1 D. D. Kounts, J. A. Honkins Sur. T.D. 65 ft.

Walker County

Beone Bros. No. 1 Thompson Bros., J. Ortego Sur. Drlg. 750 ft.

L. M. Gay et al No. 1 M. E. Stubblefield, G. Bodilla Sur. R.U.

Wharton County

Cockburn Oil Co. No. 1 Fee, J. Smith & H. McKinzie Sur. Bldg. road.

Pure Oil Co. No. 1 A. P. Borden et al, W. H. Leckie Sur. No. 25. Moving in.

Pure Oil Co. No. 1 Sam Shultz, L. P. Odgen Sur. No. 108. Moving in.

Smith & McDannald No. 1-A Priesmeyer, Charles Riley Sur. Coring 4,835 ft.; no show.

Sterling O. & R. Co. No. 1 Genzer-Jonathan Scott Sur. Drlg. hard shale 7,450 ft.

S. W. TEXAS WILDCATS

Aransas County

Buckingham Oil Co. No. 1 McCampbell, sec. 41-42, James Arida Sur. T.D. 7,501 ft.; recovered 6,200-ft. pipe; W.O. orders.

Atascosa County

Atascosa Trust No. 1 Domsch, 160 ft. S line, 300 ft. E line, 152-ac. lease, J. T. Russell Sur. 1,222. Drlg. 3,525 ft.

Bastrop County

Marts & Beavens No. 1 Hartford-Jennings. Flowed fresh wtr.; S.D.

Bee County

L. Glasscock No. 1 Holzmark, James York Sur. Drlg. 3,027 ft.

J. F. Haworth No. 1 Copeland, 330 ft. N line, 2,100 ft. E line, O. Marshall Sur. T.D. 4,252 ft.; 7-in. csg. at 3,523 ft.; perf. 3,460-69 ft.; made 1,500,000 ft. gas; 11/64-in. ch.; killed well and cmtd. perf. stdg.

Howeth & Singer No. 1 Voss, 990 ft. NW line, 330 ft. SW line, S. May Sur. Sd. 4,017-21 ft.; S.O.; tstg.

Nichols & Quinn No. 1 Scott, Blk. 7, J. Molina Sur., Uranga grant. Loc.

Bexar County

Fred Thorman No. 1 Sahm, Peter B. Hayes Sur. Drlg. 1,100 ft.

Woodward & Hardy No. 1 DeVilbiss, J. W. DeVilbiss Sur. Drlg. 720 ft.

Brooks County

California Co. No. 1 B. Garcia, 465 ft. N and W lines lse., B. Garcia tr., Salinas Sur. Cg. 7,710 ft.

Caldwell County

W. D. Jennings No. 1 McMahon, 68-ac. tr., Pinchback Sur. T.D. 2,343 ft.; set csg. 1,995 ft.; to acidize.

Cameron County

W. W. Ely No. 1 Port Isabel Irrigation Co., Blk. 17, Shares 29, 30 and 31, P. I. I. Co. Subd. Loc.

Duval County

Conservative Oil Co. No. 1, D.C.R.C. Sur. 51. Drlg. sh. 1,350 ft.

Gifford Oil Co. No. 1 Roach, Sur. 200. Ready to spud.

C. G. Glasscock No. 2 Milano S.&G. Co., 330 ft. N line, 2,310 ft. E line, Sur. 88. Location.

Frank Gravis No. 1 C. K. Gravis, 1,650 ft. SE line, 990 ft. SW line, Sur. 250. Drlg. in sdtkd. hole 5,085 ft.

Hamil & Smith No. 1 Benavides, Subd. 1, J. B. Sands, Mesquite Sur. Drlg. 1,169 ft.

J. J. O'Hern No. 1 Carrilo, Sur. 492. Drlg 420 ft.

Randon Oil Co. No. 1 Central Securities. Drlg. 360 ft.

Rogers & Rogers No. 1 Pena, 3,337 ft. SW line, 1,306 ft. NW line, R. S. de Pena plat. Drlg. 2,127 ft.

F. Shield No. 1 Hazelwood, Sur. 110. Pg. 2,180 ft.

Texas Co. and Ohio Fuel Co. No. 2-B, D.C.R.C. Sur. 192. T.D. 2,715 ft. D.&A.

Goliad County

Zeni Oil Co. No. 3 Lutenbacher, 330 ft. N and W lines, SE¼, sec. 25. Drlg. 2,855 ft.

Hidalgo County

Gulf States Oil Co. No. 3 John Engleman, Lot 3, Blk. 70. T.D. 6,812 ft.; sh.; 7-in. csg. at 6,764 ft.; P.B. to 6,700 ft.; perf. csg. 6,688-96 ft., testing.

Helen K. Maxwell No. 1 Hidalgo Wtr. Dist. No. 2, Lot 11, Blk. 20, Alamo Land & Sugar Co. Subd., Alamo Tr. Perf. 650-56 ft.; bailing Wtr. S.O.

Quintana Petroleum Co. No. 1 John C. Engleman, Lot 10, Blk. 94, Las Mestanas grant. S.D. 3,904 ft.

Dayle Smith No. 1 Fairbanks & Young, Blk. 44, Porc. 46. T.D. 3,904 ft.; R.U.

Jim Hogg County

J. J. Cosner No. 1 Vela hrs., Sh. 1, Blk. 5, Clark & Cowden Subd., El Peyote gr. Loc.

Magnolia Pet. Co. No. 1 Magnolia-Holbien, Sur. 35, Arriba Grant. Drlg. 2,491 ft.

Theo. Hicks et al No. 1 Kohler, C W½ sec. 9, Novacitas grant. Loc.

Knode et al No. 1 Saunders, Sh. 3, Sur 17, Las Animas grant. T.D. 3,750 ft.; D.&A.

Jim Wells County

Edwin M. Jones No. 1 Robt. Adams, 446 ft. S and W lines, Blk. 47, Waldron Oil & Gas Subd., Adams ranch. Drlg. 4,595 ft.

R. A. Graddy No. 1 Bennett, 330 ft. N and W lines, Lot 87, sec. 76. Drlg. 1,107 ft.

Gist & Graddy No. 1 Owens, 660 ft. N line, midway E and W lines, Sur. 151. S.D. 1,927 ft.

Karnes County

R. L. Barnett No. 1 fee, NE cor. 568-ac. tract. Set sur. csg.; W.O.C.

DeGraffe & Reele No. 1 Cochran, 460 ft. E line, 160 ft. S line, McConnell League. Spudded in.

Worth Oil Co. No. 1 Hysaw, 1,070-acre tract, Sequin Grant. Set sur. csg. W.O.C.

LaSalle County

Paul Meader No. 1 Reed, sec. 136. Resumed drlg. 2,790 ft.

W. H. Vernon No. 1 Las Abias ranch 150 ft. N line, midway E and W lines, sec. 726. Loc.

Live Oak County

O Dovre No. 1 San Antonio Joint Stock Land Bank, 150 ft. N line, 725 ft. E line, Plat 27, Tips Subd., Everett Sur. Spudded.

R. H. Feltner No. 1 J. T. Carter, 1,847 ft NW line, 350 ft. NE line, 120-ac. tract sec. 319. T.D. 3,753 ft. D.&A.

J. J. McRoberts No. 1 Mahoney, 3,100 ft. SW Junction Three Rivers, Tilden Highway and Thomas Henry Sur. lines, 150 ft. N. Drlg. 507 ft.; S.G.

Windsor Oil Co. No. 1 B. E. Stolte, cen tr., Wm. Kundy,. 3,690-ac. blk. Drlg. 350 ft.

McMullen County

Climax Oil Co. No. 1 Lark, 150 ft. S and W lines, Blk. 96, Scrugham Sur. Loc.

Rainer Oil Co. No. 1 Hagist, 330 ft. E and W lines, SW¼, SE¼, Sur. 25. Drlg. 1,220 ft.

Nueces County

V. L. Blanchard No. 1 T. H. Isensee, 330 ft. N and E lines, Blk. 8, R. Schaffer Lands Subd. Drlg 5,120 ft.

W. D. Hines No. 1 Flato, NW cor. Driscoll Townsite. S.D. 4,072 ft. (corrected).

M. F. Hurlburt No. 1 Phillips, sec. 9 Flour Bluff Garden Tracts. Cg. 7,120 ft.

O. W. Killam No. 1 Ellick, 330 ft and E lines tr., sec. 109, Paul Subd Sd. 3,892-98 ft.; capped and killed with cement. Erecting derrick to tap shallow gas sand.

Terminal Oil Prod. Co. No. 1 Thurman, 660 ft. N and W lines, SW¼, sec. 10 Cg. 4,095 ft.

G. M. Richardson No. 1 Gerhardt, 660 ft E line, 330 ft. N line, sec. 79. Drlg. 5,365 ft.

San Patricio County

Benedum & Trees Oil Co. No. 2 Welder, sec. 19. T.D. 7,015 ft. P.B. 5,710 ft. to test.

Benedum & Trees Oil Co. No. 3 Welder, 2,259 ft. E line, 940 ft. S line, sec. 19, Welder Ranch Subd. Drlg. 5,021 ft.

C. B. Bunte No. 1 Mayfield, 121 ft. W line, 237 ft. N line, Tr. 11, Ross Subd R. U. and S.D.

O. W. Killiams No. 1 Green, 150 ft. E and NW lines tract, Geo. H. Paul Subd. M.I.M.

Joe Lundins No. 1 Welder, 330 ft. N and W lines, sec. 30, Paul Subd. Spudding.

Plymouth Oil Co. No. 2-D Welder, 456 ft. N and E lines, sec. 4. Location.

Portilla Oil & Gas Co. No. 1 Welder, 466 ft. E line, 2,333 ft. N line, sec. 5. T.D. 6,100 ft. Tested s.w.

Starr County

J. F. Anderson No. 1 Yzaguerre, Tr 1 Porc. 79, J. of Camargo. Cg. 1,733 ft.

Bishop & Henshaw No. 1 Martin, 660 ft. S line, 927 ft. W line, Sur. 627. Drlg. 1,187 ft.

Coreta Oil Co. No. 1 Pena, 150 ft. S and E lines, Sh. 80, Porc. 81. T.D. 1,500 ft S.D.

Killam & Stagg, No. 2 Sanford Ricaby, Porc. 83, Jurisdiction of Camargo. Cleaning hole 1,420 ft.

Kingwood Oil Co. No. 1 M. Guerra & Son Porc. 56, Jurisdiction of Mier. T.D. 500 ft. D.&A.

Larkin & Warr No. 1 Kelsey-Bass, 531 ft. N line, 408 ft. E line, Lot 8, Porc 87. Drlg. 4,072 ft.

Ed Leach No. 2 Wood Est., Por. 84, J. of Camargo (old Weyel No. 1 Wood) W.O. T.D. 2,160 ft.; reworking.

Porter Evans et al No. 1 Starr County Cattle Co., cen. Lot 14, Sh. 60, Porc. 89 J. of Camargo. M.I.M.

Webb County

French Oil Co. No. 1, S. Benavides Sur. No. 2,254 ft. Drlg. 1,120 ft.

Willacy County

M. E. Morton et al No. 1 Santa Rosa, 330 ft. N and E lines, Lot 12, Blk. 31 Santa Rosa Subd., Sh. 44. Loc.

Shell Pet. Corp. No. 1 Yturria Land & Cattle Co., 990 ft. S and E lines, Sharp 64, San Juan de Carricitos grant. T.D. 5,486 ft. Drlg. hd. sd. 5,456 ft.

Wilson County

A. G. Reimenschneider No. 2 L. Harrell, 750 ft. NE line, 2,800 ft. NW line Barrera Sur. Fsg. 740 ft.

Zapata County

O. J. Perren No. 1 Uribe, 330 ft. NE line, 227 ft. SE line, Blk. 31, Borrego grant. R.U.

Zavalla County

Bay Oil Co. No. 1 Nat. Bank of Commerce, sec. 43, A.B.&M. Sur. Cg. 6,055 ft.

Frank Buttram No. 1 Whitecotton, 2,400 ft. N line, 300 ft. W line, A.B.&M. Sur Drlg. 5,440 ft.

S. W. TEXAS PROVEN

Dirks—Bee County

Dirks Bros. and McMurray No. 2-B Harris, 200 ft. N line, 1,025 ft. W line, 61.9-ac. tr., J. L. Dugat Sur. Comp., no gauge.

Dirks Bros. No. 7 Harris, 65-acre tract, J. S. Dugat Sur. M.I.M.

Pettus—Bee County

United Prod. Co. No. 53 Ray, Thos. Hanson Sur., Abst. 172. T.D. 4,125 ft. D.&A.

Ray—Bee County

N. V. Duncan No. 3-A Campbell, B.&B Sur., Abst. 139. R.U.

Alta Verde—Brooks County

Fairway Prod. Co. No. 1 Singer, Sur. 312. Loc.

Starr Dev. Co. No. 1 Singer, Sur. 436. Drlg. sh. 392 ft.

Salt Flat—Caldwell County

Chiquita Oil Co. No. 1 Hickman, G. Hinds Sur. T.D. 2,661 ft. Comp. on pump, no gauge. R.U. to pump at 2,235 ft.

Louis Crouch No. 1 Davis, A. Floyd Sur. R.U. to pmp. at 235 ft.

Driscoll—Duval County

Continental Oil Co. No. 9-A Sevier, Sur. 23. Sd. 3,330-41 ft.; tested gas; P.B. from 3,604 ft. to 3,414 ft.; W.O.C.

Government Wells—Duval County

Magnolia Pet. Co. No. 7 Bryan White, sec. 49. Drlg. 275 ft.

Morris Stein No. 1 Hahl, 160-ac. tract, Sur. 47. Spudded. S.D.

J. T. Stover No. 1 Hester, 330 ft. S and E lines, SW¼, NE¼, Sur. 47. Drlg. 2,040 ft.

Hoffman—Duval County

Duval Oil Corp. No. 2 Hoffman, Sur. 118. Drlg. 2,409 ft.

Duval Oil Corp. No. 4 Hoffman, sec. 118. Skidding on.

Duval Oil Corp. No. 1, A. Hoffman, Sur. 118. Comp. 15,000,000 ft. gas. T.D. 2,764 ft.

W. C. McBride No. 1 Cuellar, Sur. 123. R.U.; drlg. 2,107 ft.

W. D. Maston No. 1 Ruiz, Sur. 128. Perf. 2,604-10 ft. No show.

Plymouth Oil Co. No. 2-B Hoffman, Sur. 118. Location.

Rogers & Rogers No. 3 Hoffman, Sur. 118. M.I.M.

Rogers & Rogers No. 3 Sutherland, 500 ft. W of No. 1, 330 ft. S line, sec. 120. Set csg. 2,883 ft. Swabbing in.

Rogers & Rogers No. 4 Sutherland, E½, Sur. 120. M.I.M.

Standard of Kansas No. 6 Hoffman, Sur. 118. Comp. 254 B.P.D.; T.D. 2,262 ft.

Standard of Kansas No. 8 Hoffman, Sur. 118. Comp., no gauge. T.D. 2,875 ft.

Sun Oil Co. No. 1 Sutherland, Sur. 68 T.D. 3,262 ft. P.B. 2,761 ft. Comp. gasser.

N. Kohler—Duval County

Navarro Oil Co. No. 1 Peters, Sur. 39. Drlg. 170 ft.

Windsor Oil Co. No. 2 Peters, 2,304 ft. S line, 3,269 ft. E line, Sur. 33. Sd. 2,578-2,615 ft.; S.O.&G.

Windsor Oil Co. No. 3-B Peters, Sur. 34. Comp.; 25,000,000 ft. gas; T.D. 2,700 ft.

Labbe—Duval County

Stanolind O. & G. Co. No. 5 Farmers Life Ins., Sur. 416, 660 ft. S and E No. 1. M. I. M.

Loma Novia—Duval County

Bridwell Oil Co. No. 4-A Hubbard, sec. 71. Comp. 4 B.P.H. on ½-in. choke. Sd. 2,657-58 ft.

Bridwell Oil Co. No. 1-B Hubbard, Sur. 73. Comp. no gauge. Sd. 2,770-80 ft.

Bridwell Oil Co. No. 1-D Hubbard, sec. 73. Drlg. 2,020 ft.

Claude Hamil Co. No. 18 Hubbard, Sur. 77. Location.

C. C. Hamil No. 19 Hubbard, Sur. 77. Comp. 20 B.P.H. on ½-in. choke. T.D. 2,692 ft.

Highland Oil Co. No. 13 Hubbard, Sur. 75. Comp. 10 B.P.H. on ½-inch choke. Sd. 2,600-09 ft.

Highland Oil Co. No. 14 M. C. Hubbard, Sur. 72. Comp. 240 B.P.D. on ¼-in. ck.; sd. 2,750-62 ft.

Humble Oil & Refining Co. No. 38-B Hubbard, Sur. 83. Oil sd. 2-698-2,710 ft. Set csg. 2,715 ft. W.O.C.

Humble O. & R. Co. No. 39-B Hubbard, Sur. 83. Sd. 2,619-35 ft.; comp. 961 B.P.D. on ½-in. choke.

Humble Oil & Refining Co. No. 43-B Hubbard, Sur. 83. Drlg. 790 ft.

Humble O. & R. Co. No. 46-B M. C. Hubbard, Sur. 83. Sd. 2,736-52 ft. Comp. 795 B.P.D.

Humble O & R. Co. No. 54-B M. C. Hubbard, Sur. 83. Sd. 2,869-80 ft. Comp. 563 B.P.D.

Humble Oil & Refining Co. No. 58-B Hubbard, Sur. 83. M.I. Rig.

Humble O. & R. Co. No. 9 Vela, Sur. 42. Sd. 2,685-2,705 ft. D.S.T. 240 ft. P.L.O. W.P. 25 lbs. in 5 min.

Magnolia Petroleum Co No. 31 Hahl, Sur. 67. Drlg. 1,650 ft.

Magnolia Pet. Co. No. 35 Hahl, Sur. 67. Comp. 8 B.P.H. on ½-in. choke. T.D. 2,590 ft.

Magnolia Pet. Co. No. 39 Hahl, Sur. 67. Comp. 15 B.P.H. on ½-in. choke. T.D. 2,683 ft.

Magnolia Petroleum Co. No. 40 Hahl, Sur. 67. M.I.M.

Rodney DeLange No. 4 Flodin, Sur. 76. Spudded in.

Rodney DeLange No. 4 Flodin, Sur. 76. Spudding in.

Rodney DeLange No. 4 Moody, Sur. 76. T.D. 2,533 ft. Comp. est. 480 B.P.D.

Shell Pet. Corp. No. 3 Bishop, Sur. 59. Set csg. 2,540 ft. W.O.C.

Shell Petroleum Corp. No. 4 Bishop, Sur. 59. M.I.M.

Shell Pet. Corp. No. 27 Hubbard, Sur. 77. Sd. 2,713-18 ft.; swbd. S.W.; closed in; T.D. 2,728 ft.

Shell Pet. Corp. No. 30 Hubbard, Sur. 84. Set. csg. 2,731 ft. W.O.C. T.D. 2,743 ft.

Texas Co. No. 15 B.C.C., Sur. 59. Drlg. collapsed; stdg.; cleaning wreckage.

Texas Co. No. 41 Wendt, Sur. 63. Drlg. 1,090 ft.

Loma Vista—Duval County

Atlantic Oil Prod. Co. No. 1 J. F. Welder hrs., 330 ft. N and E lines, 160-ac. tr., Sur. 103. Loc.

Shell Pet. Corp. No. 1-A Welder, 1,040 ft. W line, 330 ft. N line lease, Sur. 103 (new hole). T.D. 3,188 ft. D.&A.

Piedra Lumbre—Duval County

Magnolia Pet. Co. No. 4 D.C.R.C., Sur. 95. Comp. 10 B.P.H. on ¾-in. choke. T.D. 1,961 ft.

Magnolia Pet. Co. No. 5 D.C.R.C., Sur. 95. Drlg 60 ft

Texas Co. No. 18 D.C.R.C., Sur. 95. Comp. 336 B.P.D., sd. 1,953-72 ft.

Piedras Pintas—Duval County

Cabildo Oil Properties, Inc., No. 2 Tinney, sec. 8. T.D. 3,450 ft. S.D.

Seven Sisters—Duval County

Atlantic Oil Prod. Co. & Darby Pet. Corp. No. 2-G Welder, Sur. 102. M.I.M.

S. B. Cloyes No. 1 Serna, 330 ft. N and E lines tr., Sur. 384. Loc.

Darby Petroleum Corp. No. 1 Welder, 120-ac. tr., Sur. 102. Location.

Dulce Henderson & Harvey No. 1 Hagist, Sur. 373. Loc.

Humble O. & R. Co. No. 4 Badgley, Sur. 307. Sd. 2,516-28 ft. Set csg. W.O.C.

Humble O. & R. Co. No. 15-A Serna, Sur. 384. Comp.; no gauge; sd. 2,471-83 ft.

Humble O & R. Co. No. 12-B Serna, Sur. 384. Sd. 2,493-2,504 ft.; P.B. 2,225 ft. W.O.C. T.D. 2,722 ft.

Humble O. & R. Co. No. 11 Smith, Sur. 382. Cg. sh. 2,390 ft.

Humble O. & R. Co. No. 13 Smith, Sur. 382. Sd. 2,396-2,401 ft.; comp. 10.88 B.P. H. on ⅛-in. choke.

Humble O. & R. Co. No. 14 Smith, Sur. 382. M.I.M.

Chas. Kleiner No. 1 Chernosky, Sur. 226. Loc.

Mid-Continent Pet. Corp. No. 8 Serna, Sur. 384. Sd. 2,199½-2,208 ft.; swbg. in.

Navarro Oil Co. No. 6 Welder, Sur. 383. M.I.M.

Navarro Oil Co. No. 5 Welder, Sur. 383. Comp. 20 B.P.H. on ½-in. choke. Sd. 2,476-83 ft.

Pan American Prod. Co. No. 4-A Welder, Sur. 381. Location.

Pan American Prod. Co. No. 4-A Welder, Sur. 381. T.D. 2,450 ft.; W.O. orders.

Pan American Prod. Co. No. 1-C Welder, Sur. 383. Comp. 380 B.P.D. on ⅝-in. choke. Sd. 2,449-62 ft.

Parr Oil Co. No. 4 Welder, Sur. 383. Sd. 2,443-53 ft.; set csg. 2,443 ft.; W.O.C.

Reliance Oil & Royalty Co. and Henderson & Harvey No. 1 Drummond (new hole). 330 ft. S and E lines, Sur. 308. Comp. 30 B.P.H. Sd. 2,506-19 ft.

Reliance Oil & Royalty and H. H. Henderson No. 3 Drummond, Sur. 308. Comp. est. 30 B.P.H. on ⅝-inch choke. T.D. 2,510 ft.

Reliance Oil & Royalty and H. H. Henderson No. 4 Drummond, Sur. 308. Drlg. 1,386 ft.

Reliance Oil & Royalty No. 3-A Telford, Sur. 385. Comp. est. 7 B.P.H. T.D. 2,711 ft.

Santa Clara Oil Co. No. 8-B Welder, Sur. 383. Drlg. 1,533 ft.

Texas Co. No. 2 Badgley, Sur. 307. M.I.M.

Santa Clara Oil Co. No. 6-B Welder, Sur. 381. T.D. 2,487 ft.; sd. 2,459-87 ft.; comp. 24.10 B.P.H. on ¼-in. choke.

Westheimer & Daube No. 11 Campos, Sur. 224. Sd. 2,658-74 ft.; comp. 144 B.P.D. on ⅝-in. choke. T.D. 2,674 ft.

Pearsall—Frio County

Amerada Pet. Corp. No. 7 Halff & Oppenheimer, 1,320 ft. W line, 330 ft. S line, J. H. Gibson Sur. No. 16. T.D. 3,926 ft.; P.B. 3,910 ft.; W.O. tools.

Amerada Pet. Corp. No. 2 Michael, 511 ft. N line, 466 ft. W line, A. Lynch Sur. 321. M.I.M.

Amerada Pet. Corp. No. 1 Miller, 466 ft. NE and SE lines tr., B. Saltillo Sur. Rebuilding derrick.

Amerada Pet. Corp. No. 3 Smith, 466 ft. E line, 905 ft. N line, J. B. Mason Sur. 322. M.I.M.

Combs & Oakes No. 1 Arp, 330 ft. S and E lines, 102-ac. tr., S. Blair Sur. 297. Drlg. sdy. sh. 4,420 ft.

North Pettus—Goliad County

Bostex Oil Co. No. 1 Lackey, 1,650 ft. NW line, J. Gomez Sur., 1,660 ft. SW of No. 3-A. M.I.M.

Jane Oil Co. No. 3-B Gillette, 310 ft. SE No. 2-B, cen. N and S lines, J. Gomez Sur. Spdg.

Jane Oil Co. No. 1 Runge State Bank, 990 ft. SE line, 150 ft. SW line, J. B. Myers Sur. Set sur. csg. 200 ft. W.O.C.

Jane Oil Co. No. 2 Runge State Bank, tr. 6, J. B. Myers Sur. Set sur. csg. 200 ft. W.O.C.

Magnolia Pet. Co. No. 1 Gillette, 137 ft. SW line lse., 1,650 ft. NW line, J. Gomez Sur. Set csg. 3,860 ft. W.O.C.

Magnolia Pet. Co. No. 2 Weldon & Sachey, 990 ft. NW line, 5,250 ft. SW line, J. Gomez Sur. T.D. 3,689 ft.; drlg. plugs.

Sun Oil Co. No. 6 Scarborough, E. Talley Sur. Sd. 3,632-40 ft. Swbg. in.

Walton—Guadalupe County

W. J. Walton No. 1 Krueger, 150 ft. N & W lines, 130-ac. tr., H. Brand Sur. Comp. 50 B.P.D. T.D. 2,314 ft.

Mercedes—Hidalgo County

Union Sulphur Co. No. 7 American Rio Grande L. & I. Co., 4,000 ft. SE of No. 1. Farm Tr. 2,309, Blk. 59. T.D. 7,597 ft.; swbg. 7,530-34 ft.

Union Sulphur Co. No. 8 American Rio Grande L. & I. Co., 660 ft. N & E lines Tr. 2,120, Blk. 57. T.D. 7,822 ft.; P.B. 7,590 ft.; testing 7,500 ft.

Union Sulphur Co. No. 9 American Rio Grande L. & I. Co., Farm Tr. 2,375, Blk. 59. Cg. 7,595 ft.

Samfordyce—Hidalgo County

J. T. Barlow No. 1 Marta Flores de Chapa, Tr. 250, Porc. 39 (workover) Cg. 3,150 ft.

Barnett Pet. Corp. No. 3-A Sheldon, Tr. 11, Porc. 41. T.D. 2,800 ft. Testing.

Rogers & Rogers No. 5 Guerra, 230 ft. N and E lines, Tr. 254, Porc. 38, 39 and 40. Comp. 60 B.P.D. on ⅛-in. choke.

Weekly Oil Corp. No. 2 Luis George, Tr. 12, Porc. 41. Drlg. 1,970 ft.

G. W. Wheeler No. 2 Felipe Farias, Tr. 255, Porc. 39. Cg. 3,051 ft.

Bentonville—Jim Wells County

La Jita Corp. No. 1 Erck, 330 ft. N & E lines, N½, sec. 75. M.I.M.

La Jita Corp. No. 1 Pope, 660 ft. S and E line, sec. 20, King Farm Lots. Reaming 4,019 ft.

Stanolind O. & G. Co. No. 1 Frame & Bowers, 330 ft. S & E lines, sec. 14. M.I.M.

Stanolind O. & G. Co. No. 1 Raney, 330 ft. N and E lines, sec. 16. Sd. 5,364½-76 ft. Testing.

Stanolind O. & G. Co. No. 1 Sain, 330 ft. S and W lines, sec. 18. Drlg. hd. sd. 5,503 ft.

Stanolind O. & G. Co. No. 1 Thompson, 330 ft. N and W lines, NE¼ sec. 4. Drlg. hd. shell 3,534 ft.

Texon and Lucey No. 1 Dodd, 330 ft. S and E lines, sec. 15, R. King Farm Lots Subd. Cg. 6,412 ft.

Rhode—McMullen County

Humble O. & R. Co. No. 1 Rhode, 330 ft. N and E lines, Sur. 58. Cored sd. 1,795-1,807 ft. with oil odor; comp. gasser.

Whisenant & Trenchard No. 1 Roos Bros., sec. 60. Cg. 2,612 ft.

Saxet Heights—Nueces County

Bartlett & Reed No. 1 Carson, SW cor., 20-ac. tr., Villareal Sur. Comp. 15 B.P.D. at 4,077-80 ft. on 5/32 inch choke. T.D. 4,117 ft.

Capitol Oil Co. No. 1 Corpus Christi Ind. School Dist., Fairview School Survey. Set surface csg. W.O.C.

Capitol Oils, Inc. No. 1 Gravis, 2.86-ac. tr., Blk. 11, Bancroft Farm Lots. Comp. 122 B.P.D. on 5/32 inch choke. T.D. 4,070 ft.

W. W. Chapman No. 1 Mrs. J. A. Walsh, 180 ft. SW line, 83 ft. NW line tr., Country Club Addn. T.D. 2,400 ft. S.D.

Cherokee Oil Co. No. 1 Morris, Bancroft Farm Lots, Drlg. 3,676 ft.

J. K. Culton No. 1 Cantwell, 250 ft. W line, 510 ft. S line tr. Comp. 390 B.P.D. on ¼-in. choke. Perf. 4,081-89 ft.

J. K. Culton No. 2 Cantwell, Villareal Sur. Sd. 4,070-82 ft. Set csg. W.O.C.

A. C. Erwin No. 3 fee, Cen. Blk. 1, Oak Park Addn. R.U.

Tom Graham No. 1 Harmon-Flood, Blk. 4 and 5, Ellendale Gardens No. 1. T.D. 4,087 ft. Comp. 185 B.P.D. on 5/32 inch choke.

Tom Graham No. 1 Haug, Lots 6 and 7, Ellendale Gardens No. 2. Drlg. plugs; T.D. 4,086 ft.

Tom Graham No. 1-B Priour, 4½-ac. tr. Sd. 4,068-73 ft. Drlg. plugs.

D. H. Hawn No. 1 G. R. Swantner, cen. 1.74-ac. tr. Drlg. 3,924 ft.

Pedernal Oil Co. No. 1 C. R. Priour, cen. Blk. 15, Oak Park Addn. Drlg. 3,693 ft.

Port Oil & Gas Co. No. 4 Country Club, Lot 20, Villareal Sur. Sd. 4,074-86 ft., cleaning in pits.

Renwar Oil Corp. No. 1 Guaranty Title & Trust Co., Lot 9, Blk. 12, Villa Gardens. Drlg. 3,216 ft.

W. A. Richardson No. 2 Edwards, 10-ac. tr., Villareal Sur. Drk.

Reed & Spiller No. 1 Harmon & Flood, 180 ft. N line, 2-ac. tr., Ellendale Gardens No. 1. Drlg. 3,615 ft.

W. F. Stone No. 1 J. H. Dryer, Blk. 8, Villa Gardens. Sd. 4,077-83 ft. Set csg. 4,084 ft. W.O.C.

Taylor Refining Co. No. 2 Corpus Christi Ref. Corp., 3,600 ft. NE discovery well. T.D. 4,070 ft. Sd. 4,062-65 ft. Cleaning.

Taylor Ref. Co. No. 2 Corpus Christi Country Club, 250 ft. SW line, 1,005 ft. SE line, 73-ac. tr. Sd. 4,066-70 ft.; cleaning.

Westgate Oil Co. No. 4 Sturm Estate, 83-ac. tr., set csg. 500 ft. W.O.C.

Winn Drlg. Co. No. 1 Starr, 125 ft. NW line, 150 ft. SW line, 3.39-ac. tr., Blk. 11, Bancroft Farm Lots, Top sd. 4,068 ft.; set csg. 4,077 ft.; W.O.C.

Saxet—Nueces County

Paul Benedum No. 2 Morgan, Sur. 405 (old Gibson O. & G. Co. test) W.O. Drk.

W. W. Chapman No. 1 M. B. Humphrey, 330 ft. N & W lines, 20-ac. tr., J. W. Stevens Sur. 406. Set sur csg. at 1,000 ft. W.O.C.

W. W. Chapman No. 1 Morgan Clark, 330 ft. S and E lines, 322-ac. tr., Sur. 405. (Old Texas Coast Oil Co. well) D.S.T. 5,820-51 ft.; 10 fourbles oil in 13 min.; W.P. 100 lbs. Drlg. plugs 5,851 ft.

Conroe Drlg. Co. No. 2 Frank Bliss, J. W. Stevens Sur. 406. Drlg. 2,542 ft.

Conroe Drlg. Co. No. 1-A Rand Morgan, 990 ft. E line, 330 ft. N line, Sur. 403. T.D. 2,250 ft.; S.D. for wtr.

Conroe Drlg. Co. No. 1-B Rand Morgan, 330 ft. N line, 990 ft. E line lease, Sur. 403. Drlg. 4,830 ft.

Conroe Drilling Co. No. 1-C Rand Morgan, 990 ft. E line, 330 ft. N line, lease, Sur. 403. R.U.

Gilcrease Oil Co. No. 1 Sullivan, 330 ft. N and E lines, 140.13-ac. tr., Thos. Gallagher Sur. Set csg. 1,250 ft. W.O.C.

L. Glasscock No. 1 Glover Johns, W. S. McGregor Sur. 582. Drlg. 4,221 ft.

Great States Oil Co. No. 1 Smith, 330 ft. W line, 125 ft. N line, 11-ac. tr. Comp. 760 B.P.D. (est.) on 5/16 inch choke. Sd. 4,421-26 ft.

W. B. Hinton No. 1 E. B. Cole, 60-ac. tr., Villareal Sur. Sd. 4,848-73 ft.; comp. 318 B.P.D. on 5/16 inch choke.

A. F. Holliday No. 3 Griffith, 330 ft. N and E lines, 99.79-ac. tr., Frank Sur. 416. Drlg. 4,927 ft.

A. F. Holliday No. 4 Hutchins-Stillwell, 330 ft. S and W lines, Blk. 30, Sheppard Farm Lands. Drlg. 3,907 ft.

A. F. Holliday No. 3 Hutchins, sec. 30. Blew out and ran wild; controlled. Setting csg. T.D. 5,810 ft.

Houston Oil Co. No. 2 McGregor, Sur. 311 (rework). Oil sd. 5,818-16 ft. Fsg.

Houston Oil Co. No. 11 Rand Morgan sec. 7, Rge. 5. Set csg. 4,856 ft. W.O.C.

Mills Bennett Prod. Co. No. 1 Ordner, 330 ft. S and E lines, 210-ac. tr., Sur. 410. M.I.M.

Morgan Gulf Oil Co. No. 4-A Rand Morgan, 330 ft. N line, 1,650 ft. E line. B.S.&F. Sur. 403. Drlg. 4,357 ft.

Morgan Gulf Oil Co. and Great States Oil Co. No. 1 Humphreys, 330 ft. S line, 990 ft. W line, Stevens Sur. 406. Drlg. 4,537 ft.

North Star Oil Co. No. 2 Bliss, 990 ft. N & W lines, 109-ac. tr., Stevens Sur. 406. Derrick.

North Star Oil Co. No. 2 Rand Morgan, 330 ft. S line, 1,650 ft. E line, B.S.&F. Sur. 405. Drlg. 3,074 ft.

Phillips Pet. Co. No. 3 Hutchins, 330 ft. N and W lines, Blk. 19, Sheppard Farm Lots. Drlg. 4,731 ft.

W. A. Richardson No. 1 W. S. Hutchins (workover), 330 ft. S and E lines, 80-ac. tr., Sh. 2, Frank Sur. 416 Sd. 5,881-98 ft. Tested s. w. W.O. orders.

Richardson Petroleum Co. No. 4 Perkins & LaGasse, 330 ft. W lines, 296 ft. N line, Blk. 26, Sheppard Farm Lots, Sur. 406. Drlg. 350 ft.

Richardson Petroleum Co. No. 3 Quiros, 660 ft. E of No. 2. R.U.

Shell Pet. Corp. No. 3 Flato, 330 ft. E and S lines lease, 40-ac. tr., I. Dunn Sur. Cg. hd. sh. 4,445 ft.

Sinclair Prairie Oil Co. No. 2 Isensee, 330 ft. S and E lines, 80-ac. tr., C. Land Sur. 404. Csg. collpsd.; milling 1,046 ft.

Southern Minerals Corp. No. 2 Rand Morgan, Blk. 42, Roberts Subd. Cg. 5,380 ft.

Southern Minerals Corp. No. 5 Bliss, S offset Conroe No. 1 Bliss. Drlg. 350 ft.

Southern Minerals Corp. No. 6 Bliss, S offset Holliday No. 2 Griffith. Drlg. under sur. csg.

Southern Minerals Corp. No. 7 Bliss, 330 ft. S & W lines, tr., Stevens Sur. M.I.M.

Southern Minerals Corp. No. 2 Mastin, 125-ac. tr., G. Frank Sur. 416. Drlg. 3,457 ft.

Southern Minerals Corp. No. 6 Smith, Blk. 4, Sheppard Farm Lots. T.D. 4,430 ft. Ran tbg. and liner. Rocking in.

Texon Drilling Co. No. 2 Isensee, 150 ft. N line, 112 ft. W line, 13.44-ac. tr., C. Land Sur. 404. Spudded.

Texon Drlg. Co. No. 2 Lingnau, 150 ft. N line, 112 ft. W line, 13.44-ac. tr., C. Land Sur. 404. M.I.M.

Texon Royalty Co. No. 1 McElroy, 115 ft. N line, 103 ft. W line, 40-ac. tr. Gallagher Sur. Set csg. 4,407 ft.; W.O.C.; Sd. 4,412-15 ft.

Plymouth—San Patricio County

Centennial Oil Co. No. 2 Chiltipin Creek, 640 ft. S and 46 deg,. 51 min. E of Plymouth O. Co. No. 23 C. Welder. M.I.M.

Humble O. & R. Co. No. 2 Bevly, 466 ft. N line, 315 ft. E line, Blk. 8, Sur. 35. T.D. 5,644 ft. Cleaning.

Plymouth Oil Co. No. 47-C Welder, 2,187 ft. S line, 1,433 ft. W line, sec. 49. T.D. 5,655 ft. Comp., no gauge.

Plymouth Oil Co. No. 48-C Welder, 1,213 ft. N line, 1,188 ft. E line, sec. 49. T.D. 5,502 ft.; comp. 10 B.P.H. on 5/32 in. choke.

Plymouth Oil Co. No. 49-C Welder, 331 ft. N line, 1,107 ft. W line, sec. 49. Drlg. 3,057 ft.

Plymouth Oil Co. No. 50-C Welder, 526 ft. S line, 1,427 ft. W line, sec. 50. Drlg. 2,356 ft.

Sun Oil Co. No. 3 Edgar, 466 ft. E line, 446 ft. N line lse., Blk. 1, sec. 34. R.U.

Sun Oil Co. No. 7 Hunt, 466 ft. S and E lines, Lot 5, sec. 34, Taft Farm Lands Subd. T.D. 5,640 ft. Cleaning.

Sun Oil Co. No. 1 Jackson, 466 ft. N line, 315 ft. W line tr., E½ W½ sec. 35, J. Fessenden Sur. Loc.

Taft Field—San Patricio County

Cage Prod. Co. No. 1 Mayo, Tabor Sur. Sd. 3,962-74 ft., set csg. W.O.C.

Humble O. & R. Co. No. 3 Mayo, Tabor Sur. Drlg. 4,565 ft.

Shell Pet. Corp. No. 2 Pullin, 705 ft. N line, 493 ft. E line lease, Blk. 4, 2nd Addn. Drlg. 50 ft.

Margo—Starr County

Harter et al No. 2 Sanchez, 150 ft. S and W lines, 29.72-ac. tr., Sh. 72, Porc. 72, Drlg. 850 ft. (work over).

Rio Grande City—Starr County

Fech Oil Co. No. 9 Frank Doyno, 150 ft. N and E lines, Blk. 4, Tr. 77-A, Porc. 81. Set csg. 1,429 ft. Drlg. plugs.

Moss & Bass No. 1 Frank Doyno, Blk. 3, Tract 77-A. Spudded in.

Sioux Oil Corp. No. 3 Frank Doyno, 150 ft. N and W lines, Blk. 3, Tr. 77-A, Porc. 81. M.I.M.

Samfordyce—Starr County

Porter & Grimes No. 2 Garcia Land & Livestock Co., Lot 1, W½, Porc. 100. Perf. 2-494-97 ft. Cleaning.

Sun Oil Co. No. 3 Chapatola, 660 ft. N. 330 ft. W No. 2, Porc. 99. D. & A. 3,485 ft.

Aviator—Webb County

Five Spot Drlg. Co. No. 1 Bruni, Blk. 44, Albercas Grant. Sd. 1,725 33 ft. Comp. 55 B.P.D.

Lopez—Webb County

Magnolia Pet. Co. No. 1 Peal, 1,669 ft. NE of NE cor. of Sur. 73, 330 ft. W line, Sur. 383. Sd. 2-114-19 ft.; comp. 10 B.P.H.

Magnolia Pet. Co. No. 2 Peal, 660 ft. N of No. 1, Sur. 383. M.I.M.

Mills Bennett Prod. Co. No. 9 Maria Lopez, Sur. 112. Set csg. 2,225 ft. Drlg. plugs. Sd. 2,215-36 ft.

Mills Bennett Prod. Co. No. 10 Maria Lopez, Sur. 112. M.I.M.

Mortimer & Springer No. 11-B Maria Lopez, 660 ft. N, Sur. 112. Sd. 2,234-52 ft. Comp., no gauge.

Mortimer & Springer No. 12-B Maria Lopez, Sur. 112. Drlg. 400 ft.

Superior Oil Co. No. 9 W. C. Billings, Sur. 109. Sd. 2,236-57 ft. Set csg. 2,233 ft. W.O.C.

O'Hern—Webb County

Magnolia Pet. Co. No. 16 Seacord-Benavides, C Blk. 495, Hale Subd. T.D. 2,917 ft. Swabbing in.

Magnolia Pet. Co. No. 9, Servando Benavides, C Lot 6, Blk. 174. Skddg. on.

H. Reed No. 3 Servando Benavides, Hale Subd., Arispe grant. Sd. 2,372-88 ft.; comp.; no gauge; T.D. 2,894 ft.

J. J. O'Hern No 2-A Benavides, Hale Subd., Arispe Grant. Sd. 2,844-57 ft. Cleaning.

Otis Phillips No. 1-B Benavides, Blk. 134, Hale Subd. T.D. 3,250 ft. D.&A.

Escobas—Zapata County

R. A. Mitchell No. 1 Bustamente, Share 32, Comitas gr. Drlg. 420 ft.

B. W. Roscoe No. 4 Bustamante, Share 33. Sd. 1,380-88 ft.; S.D.; T.D. 1,388 ft.

Texas Co. No. 89 Whitehead, Cerrito Blanco grant. T.D. 1,780 ft.; P.B. 1,292 ft.; comp. 30 B.P.D., sd. 1,274-92 ft.

Texas Co. No. 90 Whitehead, Cerrito Blanco Grant. M.I.M.

Haynes—Zapata County

Geo. Buck No. 1 Haynes, Blk. 4, Alice D. Haynes Subd. Sd. 879-904 ft. Comp., no gauge.

Clover O. & G. Co. No. 3 Haynes, Blk. 7, Haynes Subd., Villa & Comitas Grants. Comp. 30 B.P.D. T.D. 891 ft.

Upchurch & McKay No. 1 Haynes, Blk. 7, Haynes Subd. T.D. 987 ft.; S.D.

Upchurch & McKay No. 2 Haynes, 80-ac. lse., sec. 7, Haynes Subd. Sd. 870-881 ft.; comp.; 60 B.P.D.

Upchurch & McKay No. 3 Haynes, Blk. 7, Haynes Subd. Sd. 840-54 ft. Rng. csg.

WEST TEXAS WILDCATS

Brewster County

F. C. Dodson No. 1 Texas American Synd., sec. 66, Blk. 10, G.H.&S.A. Sur. Drlg. 2,175 ft.

Cochran County

Cascade and Honolulu Oil Corp. No. 1 E. B. Duggan, cen. Labour 13, League 55, Oldham County Sch. Land. T.D. 232 ft.

Crane County

Gulf Oil Corp. No. 2 W. N. Waddell, sec. 18, Blk. B-21. S.D. 3,550 ft.

Gulf Oil Corp. No. 2 Tubbs, sec. 12, Blk. 27-B. Drlg. 3,177 ft.

Gulf Oil Corp. No. 2 McKnight, sec. 9, Blk. B-21. Loc.

Loffland Bros. No. 2 Tubbs, sec. 9, B-27. R.U. standard tools.

J. E. Lucas No. 1 Pershing, sec. 1, Blk. 31, H.&T.C. Sur. R.U. mch.

Moore Bros. No. 1 Barnsley, sec. 43, Blk. 32, P.S.L. Sur. Drlg. 4,820 ft.

Rider et al No. 1 Thaxton, sec. 2, W. L. Wilkenson Sur. Spudded and S.D.

Sinclair Prairie Oil Co. et al No. 1 Tubbs sec. 3, Blk. B-27. S.D. 4,469 ft.; acidized, testing.

Crockett County

John I. Moore No. 1 A. C. Hoover, sec. 4, Blk. FF, B.&B. Sur. S.D. 1,255 ft.

Ector County

W. Dunning, Jr., No. 1 H. E. Cummins, sec. 33, Blk. 45, Twp. 1n, T.&P. Sur T.P. 4,247 ft.; T.D. 4,252 ft.; shut in for connection.

Grisham-Hunter Corp. No. 1 R. B. Cowden, C of SE¼, sec. 10, Blk. 45, Twp. 2n, T.&P. Sur. U.R. csg. 510 ft.

Fisher County

Ellis & Eubanks No. 1 C. C. Wourland, sec. 15, Blk. 21, T.&P. Sur. Loc.

Forest Dev. Co. No. 1 A. M. Dry, sec. 108, Blk. 2, H.&T.C. Sur. S.D. 3,500 ft. To test.

Gaines County

Humble O. & R. Co. No. 1 W. Eubanks, 660 ft. S and W, sec. 6, Blk AX, Drk.

Landreth Prod. Co. No. 1 Kirk, sec. 32 A-21. Coring 4,760 ft., shows saturation.

Garza County

Brown Eagle Oil Co. No. 1 Sullivan, sec. 3, Blk. 5, K. Aycock Sur. Drlg. 1,021 ft.

M. L. Richards No. 1 U. U. Post est., sec. 1,232, D. L. Phillips Sur. Drlg. 75 ft.

Howard County

D. C. Reed et al No. 1 Walter Pike, sec. 24, Blk. 33, Twp. 1n, T.&P. Sur. S.D. 3,398 ft.

Hudspeth County

Costello Oil Corp. No. 1 Costello, SW cor. sec. 36, Blk. 70, elev. 4,075 ft. Loc.

Hayman Krupp Oil & Land Co. No. 1 Thaxton, sec. 34, Blk 74, Twp. 6, T.&I Sur. T.D. 1,131 ft.; U.R. csg.

Jeff Davis County

C. M. Joiner No. 1 Jones & Coffield, sec. 8, Blk 3, H.&T.C. Sur. Drlg. 4,142 ft.

Jones County

Consolidated Oil Co. No. 1 Hamilton, 2,819 ft. S and 2,236 ft. E, sec. 21, Blk. 4, H.&T.C. Sur. Loc.

Gyr & Davis No. 1 Clyburn, E. H. Millard Sur., Sub. 27. Spudded.

Parker No. 1 C. L. Brown, sec. 9, Blk. 2, T.&N.O. Sur. T.D. 2,132 ft.; U.R. csg.

W. K. Woods et al No. 1 McCright, 200 ft. S and E, sec. 14, O.A.L. Sur. Spudded and S.D.

Kimble County

Wilcox O. & G. Co. No. 1 H. Spiller, sec. 15, Brooks & Burleson Sur., Abst. 80. Derrick.

Loving County

Evans No. 1 Johnson. Wtr. shut-off; T.D. 3,214 ft. Swabbing and testing.

Pecos County

Dobbs Oil Co. No. 1 Rooney, sec. 12, Blk. 125, T.&St.L. Sur. Fsg. 2,060 ft.

E. R. Marshall No. 1 Banker, 1,980 ft. N and 610 ft. W sec. 25, Blk. 146, T.&St.L. Sur. S.D. 75 ft.

S. Thompson No. 1 Elsinore Cattle Co., sec. 54, Blk. D, G.C.&S.F. Sur. Drlg. 1,100 ft.

Presidio County

Linderman Bros. Oil Corp. No. 1 J. R. Biedsoe & Badgley, sec. 15, Blk. 351, G.C.&S.F. R.R. Co. Sur., 2½ mil. NE of Presidio. T.D. 1,635 ft.

Schleicher County

Cardinal Oil Co. et al No. 1 J. A. Whitten, sec. 35, Blk. LL, T.C.R.R. Sur. S.D. 4,702 ft.

Mangus Oil Co. No. 1 Judkins & Spencer, C SW¼ sec. 4, W. W. Russell, grantee. Elev. 2,209 ft.; S.G. 4,350 ft.; gas sd. 4,956-58 ft.; drlg. 6,3.5 ft.

Taylor County

Geo. Callahan No. 1 S. J. Writer. Drlg 1,830 ft.

Terry County

J. A. Estes No. 1 F. B. Graham, sec. 23, Blk. T, O.&W.R.R. Machine.

Tom Green County

Spinner No. 1 Reed, Sub. 39, Mason & Perry Sur. Drlg. 2,238 ft.

E. E. Webb No. 1 D. B. Horn, 150 ft. N and 1,700 ft. E, sec. 137, Washington Co. R.R. Sur. Spudded.

Upton County

P. Fox No. 1 Cordova Union, 2,310 ft. N and 990 ft. W, sec. 17, Blk. 1, M.K.&T. Spudded and S.D.

Ward County

Gulf Oil Corp. No. 1 W. A. Estes, sec. 38, Blk. 34, H.&T.C. Sur. Fsg. 2,381 ft.

P. Moran et al No. 1 Reynolds, sec. 12, Blk. 5, H.&T.C. Sur. S.D. 6,201 ft.

Peck et al No. 2 Reynolds, sec. 12, Blk. 32, H.&T.C. Sur. S.D. 1,365 ft.

Winkler County

Herbert Oil Co. No. 1 I. Hendrick, sec. 14, Blk. 26, S.D. 3,021 ft. Ran tubing to test.

Humble O. & R. Co. No. 2-C Walton, sec. 34, Blk. 74, P.S.L. Sur. Drlg. 2,835 ft.

Fred Hyer No. 1 Evans, sec. 8, Blk. 56, T.D. 4,437 ft.; straight reaming.

Joiner No. 1 Evans, sec. 46, Blk. 73, P.S.L. Sur. Drlg. 3,426 ft.

Navarro Oil Co. No. 1 Drane, tr., sec. 35, Blk. 26, P.S.L. Drlg. 543 ft.

Read & Duffey No. 1 Sealey, sec. 8, Blk. A, G.M.M.B.&A. Sur. Spudded.

Yoakum County

Bahan et al No. 1 Henard, C SW ¼, sec. 367, Blk. D, J. H. Gibson Sur. T.D. 2,390 ft.; standardizing.

Stogner et al No. 1 Roosevelt, sec. 215, Blk. D, John H. Gibson Sur. T.D. 249 ft.; set csg.

E. C. TEXAS WILDCATS

Anderson County

Gulf Oil Corp. No. 1 Ross, Robt. Irwin Sur.; elev. 487 ft. Drlg. 5,510 ft.

Angelina County

G. E. Ginter No. 1 Martin Wagon Works E. Evans Sur., 2 mi. W of Homer. Spdd.

Bill La Rue No. 1 Cameron Lbr. Co., I. Ray Sur. Top sd. 1,340 ft.; S.D. 1,354 ft.

Ginter et al No. 1 Cope hrs., Jose Moron Sur., 2 mi. E of Dibol Cg. 2,050 ft.

W. A. Stone et al 1 Southern Pine Lbr. Co., 3,081 ft. E and 7,150 ft. S. B. J. Thompson Sur. 8 miles SE Lufkin. R.U.

Bowie County

Westmount Oil Co. No. 1 R. N. Phillips, G. N. Hancock Sur., 10 mi. N of Oak Grove. Base Georgetown 1,924 ft. Top Paluxy 1,924 ft.; drlg. 2,750 ft.

Cherokee County

T. J. Wood et al No. 1 Huggins, L. Jordan Sur., 2 mi. SW of discovery, or 7 mi. SW of Rusk. Drlg. 3,515 ft.

Fannin County

Carter, Trustee, No. 1 Galloway, Georgetown L. 1,697-2,203 ft.; top Georgetown 2,203 ft.; S.D. 2,225 ft.

Franklin County

Earl Bateman et al No. 1 Phillips. Drlg. 2,100 ft.

E. Bateman et al No. 1-E Phillips, 150 ft. from N and W of N 38½ acres of 77-ac. tract, Wm. Birdwell Sur., 4 mi. SW Talco. M.I.R.

J. B. Bond et al 2 Sanders. 500 ft. E and 150 ft. N of E 42.3 ac. of 84.6-ac. tr., W. F. Dyer Sur. S.D. 105 ft.

J. DeGrazer et al No. 1 F. N. Bates, 150 ft. N and E. F. M. Bates Sur. E line 356. Drk.

Lucey Pet. Co. No. 2 A. W. Crawford, O. James Sur. Top Paluxy 4,131 ft., top sand 4,158 ft. S.D. 4,150 ft.

Freestone County

Tom Sharp et al No. 1 E. E. Lamb, 2,935 ft. N and 225 ft. E. Jas. Sparks Sur., 3 miles SE of Streetman. M.I.R.

Grayson County

Olson Drlg. Co. No. 1 Southwestern Life Ins. Co., J. C. Jamison Sur., 6 miles NW of Denison. Elev. 767 ft. Top Viola 4,901 ft.; T.D. 5,890 ft.; drilled out to 5,400 ft.

Henderson County

McDougal et al No. 1 E. Price, M. Mathews Sur., 4 mi. S of Trinidad. Rig.

Hopkins County

D. Hager et al No. 1 J. Worshorn, 852 ft. from E and 90 ft. from N of 300-ac., A. Whitmore Sur. Loc.

Kaufman County

Lester & Duffield No. 1 D. C. Baron, J. T. Taylor Sur., 8 mi. NE of Elmo. Top Austin 2,223 ft. Drlg. 2,710 ft.

Scott & Woodside No. 1 Robinson, A. Cherino Sur., 2 mi. W of Scurry. Austin chalk 1,200 ft.; coring 2,215 ft.

Limestone County

E. H. Daugherty No. 1 S. Welch, A. 3,158 ft.; run liner.

C. L. Lytle No. 1 J. L. Thompson, P. Varella Sur., Mexia field. T.D. 6,054 ft.; P.B. 5,880 ft.; S.D. for csg.

Navarro County

E. A. Thomason No. 2 Estes Bros., Wm. Gilbert Sur., 1,000 ft. E of No. 1, 1 mi. E of Roane. Base Austin 2,131 ft.; cg. 2,725 ft.

Red River County

Abercrombie-Harrison No. 1 Temple Lbr. Co., D. D. Bruton Sur., 10 mi. NE of Clarksville. Base Georgetown 1,020 ft.; top sand 2,104 ft. Tested salt water and mud, slight show oil. Drlg. 2,125 ft.

Williams et al No. 1 L. and O. Roberts, James Bankston Sur., 3 miles NE of Annona. Elev. 396 ft.; S.D. 725 ft.

Rusk County

Pure Oil Co. No. 1 W. H. Faulkner, Wm. Elliott Sur., 8 of Concord. Elev. 562 ft.; coring 6,455 ft.

Titus County

Jule Alford No. 2 Fry, I. P. Stern Sur., 1,313 ft. N of No. 1. Drlg. 600 ft

Dean & Atkinson No. 1 A. Cornelius, 150 ft. N and 90 ft. W line of 3-ac. tr., Delgado Sur. Drlg. 1,312 ft.

Hollingsworth Drlg. Co. No. 1 A. O. Brown, cen. Lot 1, Blk. 41, Delgado Sur. Drlg. 1,700 ft.

Jones & Shelburne No. 1 Hazelwood, Stern Sur. Drlg. 3,510 ft.

Magnolia Pet. Co. No. 1 L. Blackburn, 448 ft. E and 986 ft. S Benj. Jones Sur., 2½ miles E of Talco. Loc.

Ownby Drlg. Co. et al No. 1 F. Jones, C Lot 6, Blk. 16, M. V. Delgado Sur. Pecan Gap 1,620-1,785 ft.; elev. 361 ft.; cut fault 4,000 ft. Top Paluxy 4,215 ft. Top sand 4,260 ft. T.D. 4,347 ft., 10 bbls. per hour.

A. M. Peairs No. 1 L. Sanders, C of Lot 1, Blk. 30, Talco Townsite. Drlg. 3,100 ft.

Saunders et al No. 1 Talco School Dist., I. P. Stern Sur. Austin 2,451-81 ft.; Georgetown 3,440 ft.; top sand 4,185 ft.; T.D. 4,340 ft., elev. 372 ft., 5 bbls. per hour.

Tide Water Oil Co. No. 1 Carr, M. V. Delgado Sur. Elev. 358 ft.; top Paluxy 4,163 ft. Drlg. 4,275 ft.

EAST TEXAS

(Border Counties)

Bowie County

Fay T. Chew et al No. 1 Barkman, John Parkman Sur. Sur. pipe set; W.O.C.S.

Westmont Oil Co. No. 1 Phillips, J. W. Hancock Sur. Drlg. 3,045 ft.

Cass County

American Liberty Oil Co. No. 4 Maxie, John Collum Sur. Comp.; flw. 40 B.P.H.; ½-in. tbg. ck.; T.D. 6,006 ft.; 5-in. 5,972 ft.

American Liberty Oil Co. No. 5 Maxie, 660 ft. NW of No. 2 and 660 ft. NE of No. 3 Maxie, John Collom Sur. Loc.

American Liberty Oil Co. No. 6 Maxie, 330 ft. S and 990 ft. W, NE cor. of lse., John Collom Sur. Loc.

American Liberty Oil Co. No. 7 Maxie, 330 ft. from N and E lines of lse., John Collom Sur. Loc.

W. F. Lacy et al No. 1 Baugus, J. H. Rives Sur. 16-in. 258 ft.; drlg. 1,509 ft.

Marathon Oil Co. No. 1 R. P. Willis, S.F. I.W. Sur. 10-in. cmt. 2,108 ft.; W.O.C.S.

McElvane et al No. 1 Beckett, John Collom Sur. Comp. T.D. 6,008 ft.; flowed 43 B.P.H. ½-in. tub. ck.

R. W. Norton No. 1 W. M. Hall, 330 ft. S and 697 ft. W, NE cor. 100 acs., W. Robinson Sur. No. 907. 9-in. at 2,045 ft.; drlg. 2,495 ft.

R. W. Norton No. 1 A. S. Hall, 334 ft. S and 2,091 ft. E, NW cor. 160 acs., James Young Sur. Drlg. 4,469 ft.

R. W. Norton No. 3 Haywood, on Priscilla Evans Sur. Set 13-in. 259 ft.; drlg. 1,728 ft.

R. W. Norton No. 2 Mary Rives, John Collom Sur. Cg. 4,003 ft.

Showers & Moncrief Co. No. 1 Stallcup, J. Davenport Sur. Drlg. 3,980 ft.

Superior Oil Co. No. 1 Stallcup, 330 ft. N of S line and middle E and W of 20 ac., Robert Trammel Sur. Drlg. 4,180 ft.

Texas Co. No. 1 E. E. Hall, James Young Sur. T.D. 6,105 ft.; Comp.; flowed 70 B.P.H., 1-in. csg. ck.; T.D. 6,115 ft.

United Gas Pub. Ser. Co. No. 2 Eva Fields, John Collom Sur. Comp.; flw. 63 B.P.H.; ½-in. tbg. ck.; T.D. 6,048 ft.

United Gas Pub. Ser. Co. No. 1 L. J. Cunningham, W. Robinson Sur. Drlg. 4,739 ft.; 9⅝-in. at 2,272 ft.

United No. 3 Fields, J. Collom Sur. Comp. T.D. 6,052 ft.; flowed 20 B.P.H. ½-in. tub. ck.

United Prod. Corp. No. 1 Bivens, on John Collum Sur. Loc.

United Prod. Corp. No. 2 E. J. Cunningham, on Wilson Robinson Sur. Loc.

United Prod. Corp. No. 2 E. Tyson Unit, J. H. Rives Sur R.U.

United No. 1 Simpson, 660 ft. N of Texas Co. No. 1 Hall, J. Young Sur. Comp. flwd. 35 B.P.M.; ½-in. tbg. ck.; T.D. 6,077 ft.

United Gas Pub Ser. Co. No. 2 F. S. Simpson, 2,091 ft. E and 334 ft. N, SW cor. of 160 ac., James Young Sur. Drlg. 3,435 ft.

United No. 1-A E. Tyson Unit, J. H. Rives Sur. 13-in. 315 ft.; 9-in. 2,200 ft.; drlg. 2,210 ft.

Harrison County

W. F. Bridewell et al No. 1 Clapp, F. C. Baker Sur. T.D. 2,406 ft.; ckly. l.; top 2,382 ft.; acid 2,000 gals.; flwg. 60 B.P.H.; tstg.

Panola County

Logansport P. L. Corp. No. 1 Rushing, M. Smith Sur. Drlg. bkn. sdy. l. 2,530 ft.

N. C. TEXAS WILDCATS

Archer County

Continental Oil Co. No. 1 Claud Cowan, Blk. 6, J.C.S.L. O.S. 1,003-10 ft.; tstg.

Continental Oil Co. No. 1 Kinder, sec. 58, Blk. 5, C.&P. Subd. Drlg. 1,280 ft.

Deep Oil Dev. et al No. 1 Wilson, sec. 76, A.T.N.C. lands, W.O.C. 2,226-34 ft.; P.B. to S.O. wtr.

Kemp & Waggoner No. 1 Wilson, Blk. 75, A.T.N.C.L. Drlg. 610 ft.

M. T. McLaughlin No. 1 Lemons, A. Nunley A-320. Drlg. 1,785 ft.

J. T. Miller No. 1 Rogers, T.E.&L. 2,407. Drlg. 80 ft.

Regal Oil Co. No. 1 Wilson-A, E. Hall A-682. S.S.O. 874-99 ft.; tstg.

Clay County

Diamond-"E," Inc. No. 1 L. S. Wright, T.E.&L. 2632. Spudded.

Golding & Cochran No. 1 Ben Nutter, Blk. 30, G.C.S.L. Loc.

Cooke County

Jas. L. Anderson, No. 1 Bruhlmeyer, H. Strong A-930. S.S.O. 2,032-42 ft.; tstg.

Anderson & Kerr No. 1 A. Wilson, Strong Sur. A-930. S.D.O. 2,390 ft.

J. G. Beard et al No. 1 R. S. Rose, T. E. Hardeway A-464. Drlg. 1,710 ft.

Cain & Chandler No. 1 J. B. Burch, J. McWilliams Sur. A-655. S.D. 1,065 ft.

Fain-McGaha No. 1 J. W. Mount, sec. 9, S.P.R.R. Drlg. 720 ft.

Joe Grazier No. 1 E. P. Bell, F. J. Lindheimer Sur. A-571. Loc.

Hardin Oil Co. No. 1 J. G. Bonner, J. Lindheimer Sur. S.D.O. 2,308 ft.

B. H. Hilburn No. 1 Hugan, A. Myers Sur. No. A-640. Drlg. 1,522 ft.

F. W. Merrick, Inc., No. 1 L. P. Bell, J. S Martin Sur. A-699. H.F.W.; S.D.O. 2,317 ft.

Nair Oil Corp. No. 1 W. G. England, E. G. Spencer. Drlg. 1,360 ft.

N. Newburn No. 1 Dotson, Wm. Campbell Sur. A-238. S.D.O. 1,710 ft.

Nixon Bros. No. 1 W. R. Harper, W. W. Pettit Sur. A-812. Material.

E. R. Robison No. 1 J. Krebs, H. Wilkey Sur. A-1,090. Drlg. 909 ft.

Seitz, Comegys & Seitz No. 1 Field & Bowers, L. Raney Sur. A-878. Drlg. 2,400 ft.

S. F. Thompson No. 1 F. Trubenback, P. Davidson Sur. A-337. S.D. 765 ft.

Westheimer et al No. 1 W. A. Erwin, J. Armendaris A-1,234. Mov. in.

Whitehead et al No. 1 W. Reed, F. Earthman Sur. A-349. S.D.O. 1,230 ft.

Woodbine Oil Co. No. 1 Potter & Potter, J. Gorham Sur. S.D. 997 ft.

Denton County

Oil Finance Corp. No. 1 J. S. Gambill, T. Burress Sur. S.D. 1,042 ft.

C. S. Head No. 1 Travelers Insurance Co., Wm. A. Thompson Sur. A-1,238. Drlg. 1,670 ft.

Manning & Moore No. 1 E. L. Darnell, I. Walters Sur. A-1,329. Drlg. 1,800 ft.

Foard County

Humble O. & R. Co. No. 1 Burnett, sec. 16, Blk. X, S.P.R.R. Sur. Drlg. 3,350 ft.

Jack County

S. B. Edwards No. 1 Bryson, J. Hughson Sur. A-256. Drlg. 375 ft.

Engineers Oil Co. No. 1 Cooke, J. Young Sur. O.S. 2,950-60 ft.; tstg. and C.O.

W. H. Hammon No. 1 G. E. Evett, H. Plaster Sur. S.D. 750 ft.

W. H. Hammon et al No. 1 F. H. Rhodes R. N. Erwin Sur. A-1,378. O.S. 2,433-47 ft.; 600 ft. oil in 30 min.; tstg. and P.O.P.

Harper Pet. Corp. No. 1 Van Hooser, J. W. Morrow Sur. A-1,926. Drlg. 2,070 ft.

C. Kadane No. 1 E. F. Smith, S.P.R.R. Sur. A-522. S.D.O. 1,715 ft.

Sternteax Oil Co. No. 1 Boyd, J. N. Wright Sur. A-898. Drlg. 3,367 ft.

Montague County

Bowden et al No. 1 Buck Est., D. F. Mallard A-925. S.D. 200 ft.

Grisso Royalty Co. No. 1 Jordon, T. R. Jackson A-394. S.D. 2,090 ft.

E. T. Hart No. 1 W. L. Davis, sec. 13, Jack Co. School Lds. Drk.

Jim Seeds et al No. 1 Coombs, sec. 58, M.E.P.&P. Sur. S.D. 2,106 ft.

J. M. Holmes No. 1 H. D. Field, sec. 55, M.E.P.&P. Sur. A-528. S.D.

Sinclair Prairie Oil Co. No. 1 Holt Est., Blk. 45, K.C.S.L. Loc.

Southwest Pet. Co. No. 1 W. S. Petty, S. A. Southerlin Sur. A-992. Spud. and S.D.

Wichita County

Pete Harmon et al No. 1 J. B. Jamison, J. Deck Sur. A-52. Drlg. 1,500 ft.

J. M. Morton No. 1 Housler, J. C. Pike, A-509. Drk. down.

Reno Oil Co. No. 1 W. T. Waggoner-D, sec. 1, S.&M. Sur. A-393. Fsg. 1,576 ft.

Wilbarger County

Franklin Oil Co. No. 1 D. G. Feller, et al, sec. 108, Blk. 14, H.&T.C. Sur. S.D. 1,570 ft.

Lane & Simons No. 1 Allison, sec. 43, H. &T.C. Sur., Blk. 12. S.D. 3,511 ft.

Pettit et al No. 1 Castleberry, sec. 67, H. &T.C. Sur., Blk. 14. Drlg. 535 ft.

Regal Oil Co. No. 1 Waggoner, sec. 65, H.&T.C., Blk. 14. Drlg. 900 ft.

Smith No. 1 S. A. Dill et al, sec. 32, Blk. 14, H.&T.C. Sur. S.D. 2,090 ft.

Webb & Rogers No. 1 Mrs. D. Coffee, sec. 44, H.&T.C., Blk. 15. Spudded.

Young County

Associated Developers No. 1 Terrell, T.E. &L., 285. Drlg. 1,700 ft.

Art Cox No. 1 J. T. Rogers, J. Ray D-1,628. Loc.; 4,500-ft. test.

Curtis & Bracken No. 1 Allar Co., H. Garmes Sur. A-104. Fsg.; T.D. 4,400 ft.

Hinson Tidwell No. 1 Thompson. Drlg. 2,383 ft.

D. M. Knox No. 5 Burkett, T.E.&L. 3-412. R.U.S.T.

Chas. Knox No. 2 Worsham, T.E.&L. 3-407. Loc.

C. D. Neff et al No. 1 W. A. Dennis, C. F. Bass Sur. T.D. 3,692 ft.; C.O.

Pitzer West et al No. 1 W. R. Dollins, T.E. &L. Sur. 615. R.U.

Rathke Oil Co. No. 1 O. W. Hill, J. C. Graham A-122. R.U.R.

Rathke Oil Co. No. 2 J. T. Rogers, S. H. Graham Sur. A-124. Drlg. 4,750 ft.

Texas Co. No. 1 Stephens, T.E.&L. 1,985. Tstg. 4,012-20 ft.

Yorktex Pet. Co. No. 1 F. G. Burnett, G W. Hill, A-151. Drk.

Louisiana Lease to Shell Petroleum

Oil, says the Kansas City Star, has brought the Long-Bell Lumber Co. a substantial check. But not for oil—not yet. The check is the rental price for a one-year lease on some 79,000 acres of southwestern Louisiana land, on which the lessee hopes to find oil by an extensive exploration.

The Long-Bell company is not counting on a possible discovery of oil on the 79,000 acres. The company's own experience indicates that can't be counted on. It owns thousands of acres of cutover timber land in Louisiana, not far from where gushers are making Rodessa more than a name; yet its only sizable discovery of oil was in the rear of a retail lumber yard at Oxford, Kans.

Kansas City capitalists and banks own millions of acres in states where oil has been found, yet the biggest single stake ever received in Kansas City from oil went to a widow who had a small, rather barren Butler County, Kansas, farm that became the famed Enyart lease. Royalty checks reached Mrs. Enyart fortnightly while she lived at the Woodlea hotel, and she continued to live in luxury in the East until her death not long ago.

A rich, retired Kansas City banker owns a Texas ranch the size of a county and marked for oil—yet the only enhancement his fortune received from oil wells came from a small, isolated farm.

Many a Kansas Citian has built air castles on the theory oil could not miss broad acreage, but the Kansas City Southern is coming into a half dozen potential 30,000-gallon wells because it had an extra 100 feet of right of way in an almost forgotten Louisiana townsite.

This is the background that explains why there was not a whit of excitement last week at the headquarters of the Long-Bell company on the closing of an exploration contract. The Shell Petroleum interests are to explore the possibilities of oil on 79,000 acres of Long-Bell lands in Beauregard, Allen, Calcasieu and Jefferson Davis Parishes in southwestern Louisiana, between DeRidder and Lake Charles.

The lumber executives put the Shell check down to profit—and went on being lumbermen.

"You can't bank on oil," R. P. Combs, Long-Bell secretary-treasurer, explained, looking up from some figures concerned entirely with lumber tonnage. "For 20 years there has been wildcatting in and around our southern acreage, and we have four wells, all small. After all, there is so much land in the Mid-Continent field—and oil is in such little patches."

East Texas Completions

Week Ending June 13

Cherokee County

Merry Brothers and Perini No. 3 Kelly, 3,660-61 feet, 41 bbls. in 30 minutes. Sneed and others No. 1 DeLoach & Beane, dry and abandoned 3,680 feet. Texas Canadian Oil Co. No. 5 Keel, 3,652-53 feet, 20 bbls. in 30 minutes.

Gregg County

Arkansas Fuel Oil Co. No. 11 Lee, 3,615-32 feet, 16 bbls. in 15 minutes. Gulf Oil Corp. No. 42 Shepherd, 3,477-3,501 feet, 60 bbls. per hour. Owenby No. 6 Cabinee, 3,595-96 feet, 20 bbls. in three hours. Royall Petroleum Co. No. 2 Skipper, temporarily abandoned 3,526 feet. Stanolind Oil & Gas Co. No. 11 Adrian & McCrary, 3,473-3,518 feet, 13 bbls. in 15 minutes; No. 16 Hopkins, 3,503-3,579 feet, 16 bbls. in 15 minutes; No. 8 McGrede, 3,515-73 feet, 19 bbls. in 15 minutes.

Tide Water Oil Co. No. 20 Flewellen, 3,628-63 feet, 9 bbls. in 10 minutes; No. 13 Tuttle, 3,542-75 feet, 10 bbls. in 10 minutes. Beard No. 9 Elder, 3,548-68 feet, 8 bbls. per hour on pump. Bradley No. 1 Mt. Moriah Cemetery, 3,744-46 feet, 20 bbls. in three hours on pump. Gulf Oil Corp. No. 29 Culver, 3,552-52 feet, 56 bbls. per hour; No. 86 Hilburn, 3,550-80 feet, 60 bbls. per hour.

Humble Oil & Refining Co. No. 81-B Laird, 3,541-80 feet, 60 bbls. per hour. Hunter & Rowe No. 9 Still, 3,545-51 feet, 20 bbls. per hour on pump. Nenny No. 1 Strong, 3,606-15 feet, 22 bbls. in 10 minutes. Phillips No. 1 Reynolds, 3,597-3,604 feet, 18 bbls. oil and 13 bbls. water in 12 hours, on pump.

Roosth & Genecov No. 1 Dumas, 3,548-59 feet, 148 bbls. in four hours. Russell No. 2 Lacy, 3,456-67 feet, 13 bbls. in 15 minutes. Sinclair Prairie Oil Co. No. 59 Cole, 3,629-3,924 feet, temporarily abandoned.

Rusk County

Friedman and others No. 1 Holland & Mayfield, 3,732-33 feet, 14 bbls. in 19 minutes. Ed Harris Oil Co. No. 1 Morris, 3,715-3,716 feet, 45 bbls. per hour on pump, 30 per cent salt water. General American Oil Co. No. 3 Sexton, 3,594-3,631 feet, 12 bbls. per hour; No. 4 Sexton, 3,605-46 feet, 15 bbls. per hour. Sinclair Prairie Oil Co. No. 3-C Kennedy, 3,621-45 feet, 20 bbls. in two hours on swab; No. 4-C Kennedy, 3,625-50 feet, 20 bbls. in two hours on swab.

Wheelock & Collins No. 21 Wells, 3,668-88 feet, 45 bbls. per hour. Campbell No. 3 Kangerga, 3,532-66 feet, 15 bbls. per hour on pump. Duffy No. 1 Smith, 3,805-06 feet, 52 bbls. per hour. Gulf Oil Corp. No. 8-D Mayfield, 3,641-49 feet, 20 bbls. in 30 minutes. H. & S. Oil Co. No. 1 Coates, 3,554-66 feet, 20 bbls. in 10 minutes, on pump. Hunt Production Co. No. 10-F Bradford, 3,556-92 feet, 16 bbls. in 65 minutes on pump.

Jackson and others No. 5 Stewart, 3,779-82 feet, 30 bbls. in 30 minutes. McMurray No. 1-B Dickerson, 3,527-3,600 feet, 160 bbls. day on pump. Magnolia Petroleum Co. No. 4 Key, 3,781-82 feet, 9 bbls. in 10 minutes. Marathon Oil Co. No. 19 Clay Heirs, 3,571-72 feet, 10 bbls. per hour, on pump. Petroleum Marketing Co. No. 3-A Graham, 3,681-82 feet, 21 bbls. in 30 minutes.

Smith County

Humble Oil & Refining Co. No. 13 Thompson, 3,613-15 feet, 74 bbls. per hour. McMurray No. 10 Roberson, 3,799-3,800 feet, 20 bbls. per hour. Sinclair Prairie Oil Co. No. 57-A Mayfield, 3,789-90 feet, 20 bbls. in 20 minutes. Sun Oil Co. No. 7 Burns, 3,763-64 feet, 20 bbls. in 14 minutes, on pump; No. 8 Burns, 3,753-54 feet, 20 bbls. in 40 minutes; No. 3 Seale, 3,719-20 feet, 20 bbls. in 35 minutes. Texas-Gulf Production Co. No. 10 Hodnett and Melton, 3,717-18 feet, 10 bbls. in 10 minutes.

Upshur County

Fields No. 12 Walker, 3,667-74 feet, 45 bbls. per hour. Johnston No. 4 Williams, 3,705-07 feet, 20 bbls. in 30 minutes. Pewitt No. 1-A Sobey, 3,730-31 feet, 15 bbls. in 30 minutes; No. 2 Williford, 3,729-34 feet, 21 bbls. in 20 minutes. Reynolds No. 2 Miller, 3,748-62 feet, 12 bbls. in 30 minutes; No. 3 Miller, 3,748-54 feet, 15 bbls. in 30 minutes. Rutledge and Boller No. 8 Todd, 3,672-73 feet, 15 bbls. in 20 minutes. Sun Oil Co. No. 16 O'Byrne, 3,708-09 feet, 20 bbls. per hour. Tide Water Oil Co. and Buttram 20 Nicholson, 3,645-55 feet, 10 bbls. in 10 minutes. Trail No. 5-A Shelton, 3,737-39 feet, 40 bbls. on pump. Woods No. 1 Sobey, 3,708-15 feet, 21 bbls. per hour.

Crude Price Changes

The steady increase in production through the bringing in of new wells and the piling up of storage crude in the Cut Bank and Kevin-Sunburst fields resulted this week in the expected slashing of crude prices. The Ohio Oil Co. reduced the price of Kevin-Sunburst crude from $1.25 to $1.15 and this reduction was met by the International Refining Co. The Toronto Pipe Line Co., subsidiary of the British-American Oil Co., Ltd., which operates refineries at Coutts and Moose Jaw, Canada, reduced its posted price for Cut Bank crude from $1.50 to $1.35 and began running 100 per cent of the oil from its connections on 19 leases where it has the contracts. Division order purchases from 12 other leases are still under proration. The International Refining Co. put into effect a gravity scale which meets the cut of the Toronto Pipe Line Co. The new gravity scale is as follows:

Below 35.0	$1.29
35.0 to 35.9	1.31
37.0 to 37.9	1.35
38.0 to 38.9	1.37
39.0 to 39.9	1.38
40 and above	1.41

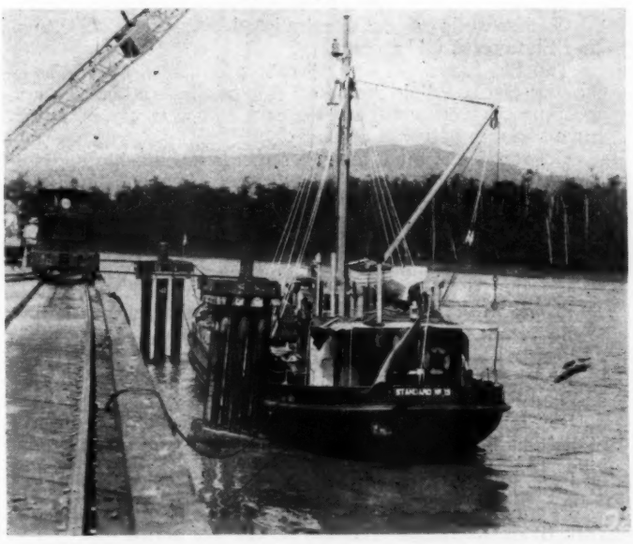
The reduction establishes a differential of 20 cents between Kevin-Sunburst and Cut Bank, as against a former difference of 25 cents. The Toronto company also put in a new rate of 15 cents per barrel on crude transported from Cut Bank to Coutts, a reduction of 7½ cents from the former price of 22½ cents.

The situation in Michigan is the reverse of that in Montana. In Michigan there is a shortage of crude oil supply, and the Simrall Corp. of Mount Pleasant, on June 15, increased its price for oil in the Midland County field to $1.42 per bbl. and in West Branch to $1.26, a 10 cent increase in both cases.

Rocky Mountain Runs

Estimated daily average production week ending June 13:

	Bbls.
WYOMING	
Salt Creek	16,830
Big Muddy	1,540
Badger Basin	40
Byron	560
Dalas Derby	570
Dutton Creek	60
Elk Basin	330
Ferris	20
Frannie	1,800
Grass Creek	1,160
Hamilton Dome	1,400
Hidden Dome	90
Hudson	280
LaBarge	1,210
Lance Creek	3,650
Lost Soldier	1,530
Midway	60
Oregon Basin	1,750
Osage	800
Pilot Butte	30
Quealy Dome	120
Rock River	1,450
Polson Spider	160
Teapot	20
Warm Springs	50
Total Wyoming	35,510
MONTANA	
Buckley-Border	220
Cat Creek	750
Cut Bank	9,000
Dry Creek	960
Kevin-Sunburst	4,500
Lake Basin	40
Pondera	1,070
Total Montana	16,540
COLORADO	
Florence	140
Fort Collins and Wellington	340
Iles Dome	3,280
Moffat	430
Orchard	70
Rangely	70
Tow Creek	180
Total Colorado	4,520
NEW MEXICO	
Artesia	650
Cooper area	8,150
Eunice	17,960
Hobbs	26,340
Hogback	290
Jal	3,110
Lea	1,000
Maljamar	1,930
Monument	6,480
Rattlesnake	690
Table Mesa	80
Total New Mexico	66,590
Total Rocky Mountain region	12,160



Oil-loading wharf for Quiriquire field, Venezuela

PERSONAL

W. H. TEBBS, who has recently been made superintendent of production for the Irion Mountain Oil Company, with headquarters in Fort Worth, Tex. The Irion Mountain Oil Company is one of the oldest oil producing organizations in the Mid-Continent field. It was organized in 1907. HAROLD G. NEELY is president and general manager. Headquarters of the company is in Fort Worth, Tex.

J. HOWARD PEW of Philadelphia, Pa., president of Sun Oil Company, presided last week at a meeting of Grove City College (Pennsylvania) trustees in Grove City. Mr. Pew is president of the college board. M. L. BENEDUM of Pittsburgh, official of Plymouth and Big Lake Oil companies and a member of the firm of Benedum & Trees, is a member of the Grove City College board and also attended the meeting.

J. A. BROWN, president of Socony-Vacuum Oil Company, Inc., sailed on the Queen Mary for a business and vacation trip.

GUY A. TOMPSON was elected vice president in charge of sales at a recent meeting of the Taubman Supply Corporation.

ALEX HOLMES, WALTER STOTTS and VAUGHN STEVENSON, of Chatham, BERT McKILLOP, also an Ontario man, are located at Kuluura Camp, near Gorgford, Australia, and 85 miles from Sydney. They will drill a 6,000-foot test for oil and gas for a Sydney syndicate.

PIERRE CONNOR, engineer with Pure Oil Company, Houston, Tex., has resigned to accept a position with Reed Roller Bit Company. Mr. Connor had been with Pure Oil Company since 1929. The previous three years he spent in engineering work for the Standard Oil Company of New Jersey in Venezuela, and before that, from 1924, he was in the geophysical department of the Humble Oil & Refining Company.

W. T. SCHNEIDER, geologist, has been added to the Honolulu Oil Corporation's geological staff and transferred from Denver, Colo., to Midland, Tex.

GLENN GRIMES, chief geologist of the Cromwell-Franklin Oil Company, has resigned that position and become a consultant geologist at Oklahoma City, Okla.

E. H. COLLINS, of Philadelphia, Pa., has been elected vice president in charge of sales for the Standard Oil Company of Pennsylvania, a subsidiary of the New Jersey Standard unit. Mr. Collins joined Standard of New Jersey in 1919.

TUCKER ROYALL, past member of the State Tender Board, and oil and royalty owner of Palestine, Tex., who was recently made chairman of the board of the First National Bank at Dallas, moving to that city, was honored at a reception given by a group of Dallas oil operators at the Dallas Petroleum Club on June 15.

A. R. WILSON, formerly manager of the producing department of the Texas Company for the Rocky Mountain division, but who a few months ago was promoted to a higher position in the executive department at Houston, Tex., was in Denver, Colo., the past week to witness the graduation of his son from the Denver high schools.

H. F. MOSES, of Denver, Colo., is with the Carter Oil Company at Mt. Pleasant, Mich.

A. R. CARMODY, vice president of the North Central Texas Company of Shreveport, La., is on a business trip into Missouri this week.

FRANK DRUBER, formerly with Wagoner Drilling Co., has joined the staff of the Creekmore Drilling Co., and is stationed at Sasakwa, Okla.

KEITH RATHBURN and GEORGE KLEIN, recent graduates of University of Nebraska, are now on the geological staff of Oklahoma-Kansas Division of Continental Oil Company at Ponca City, Okla.

J. N. GREGORY will become acting geologist in charge of University of Texas lands, in San Angelo, West Texas, in September, when DR. H. P. BYBEE goes to Austin to assume the additional duties as head of the department of geology of the University of Texas.

W. J. WILSON, secretary of the Marathon Oil Company, Tulsa, went to Madison, Wis., last Friday to answer a subpoena from a federal grand jury in session there, investigating oil marketing practices. He met A. M. GEE, E. B. REDPATH, and BOB FLETCHER, of the Findlay, Ohio, office of the Ohio Oil Company, at Madison.

W. M. GHOLSON, district superintendent for Shell Petroleum Company in Kansas, has had his district extended to include the new development work in the Turon district (Lerado pool), Kansas. He will continue in charge of the Greenwich district also. The five wells so far completed by his company in the Turon district have established a daily potential of more than 40,000 bbls.

Do You Remember?

From The Oil and Gas Journal Files

25 YEARS AGO

The Standard Oil Co. of California is planning the erection of 10-story office building in San Francisco.

The Baume gravity of crude oil produced in Southwestern Pennsylvania, Southeastern Ohio and West Virginia ranges from 38 to 63.5 degrees. The highest gravity oil comes from the First Cow Run sand in Marshall County, West Virginia.

Two tool dressers, Al Christianson and Bob Lemont, on a well in the Coalinga, Calif., field descended on the drilling line in an 18-inch hole to a depth of 185 feet and one of them made a connection between the line and the tools lost in the hole. Believe it or not!

20 YEARS AGO

Gusher wells are being completed in the Augusta, Kans., and Shamrock, Okla., pools.

The Rio Bravo Oil Co. operating in the salt marshes of the Batson, La., field has laid a pipe line above ground, the pipe covered with concrete and laid on brackets which have been treated with creosote.

Cosden & Co. buys the oil properties of the Manufacturers Oil & Gas Co. in the Augusta, Kans., field for $1,000,000. This is the second large purchase Cosden & Co. have recently made in the Cushing-Shamrock field, the other being the Hill Oil & Gas Co. properties.

10 YEARS AGO

Prairie Pipe Line Co. is planning to construct a pipe line to the Texas Panhandle from Ringling, Okla.

Horace G. James, one of the founders of the Western Petroleum Refiners Association, and a noted writer on oil dies suddenly in Chicago, Ill.

Roy Johnson, Oklahoma oil producer and vice chairman of the Oklahoma Highway Commission, is married in Huntsville, Tex., to Miss Elizabeth Thomasson. They will reside in Ardmore, Okla.

Twenty representaive petroleum stocks listed on the New York Stock Exchange average $59.91 per share.

H. D. EASTON, consulting geologist in Shreveport, La., is on a business trip into southern Arkansas this week.

C. C. CROSS, of Regina, Saskatchewan, heading a party of 16 Saskatchewan business men, recently made an inspection of the Turner Valley field.

ROBERT M. WHITESIDE, who recently resigned from the geological department of the Shell Petroleum Corporation, has joined the W. A. Delaney interests of Dallas, Tex.

ZACK TRIGG, of the Broadwater Drilling Company, and BUCK JACKSON, of the Olson Drilling Company, have been transferred from Kansas areas to the Oklahoma City field.

W. L. CONNELLY, chairman of the board of the Sinclair Prairie Oil Co., of Tulsa, and Mrs. Connelly are in Casper, Wyo. Mr. Connelly is inspecting properties of the Sinclair-Wyoming Oil Company.

COL. W. C. O'FERRALL, formerly with Standard Oil Company of Louisiana, will join the Lion Oil Refining Company organization, effective August 1, it was announced by COL. T. H. BARTON, president.

MISS MYRNA CORY, daughter of A. B. CORY, of the Marathon Oil Company, and MRS. CORY, was married to GEORGE FRANKLIN FINLEY in the First Methodist Church at Tulsa. They went to Galveston, Tex., on their honeymoon.

F. L. COCHERAN, Rocky Mountain division manager of the Standard Oil Company of Indiana with headquarters at Denver, and H. B. CARPENTER, head of the division road oil department, flew by plane from Denver to Billings, Mont., on company business.

PARAGRAPHS

HALL EDWARDS, geologist for Superior Oil Company, has been transferred from Corpus Christi to Midland, Tex.

JOHN P. STEELE, division manager for the South Chester Tube Company, underwent an appendectomy at All Saints Hospital at Fort Worth, Tex., and is making good progress toward recovery.

E. H. SALRIN, president of Tide Water Oil Company at Houston, Tex., R. H. PRINGLE, vice president of Tide Water at Tulsa, and J. H. JENKINS, of the Associated Oil Company of California, were business visitors at the Tide Water offices in Shreveport, La., last week.

DR. J. S. STEWART, of Ottawa, has started work for the Geological Survey of Canada in southwestern Ontario. He will have charge of two parties of engineers and geologists, one with headquarters at Chatham and the other at Tilbury, and work will continue through the summer.

L. R. HOLMES has served 33 years with the Texas Company of California and the parent company in the more easterly part of the country. Others now with the California division who have long worked for the company are B. E. HALLORAN, 28 years; C W. CHANDLER, 26 years; G. C. ELLIOTT, 25 years, and C. W. BARTON, 20 years.

D. H. THOMPSON has been transferred from Ada, Okla., to Odessa, Tex., to become manager of the Fox Rig & Lumber Company's yard at the latter place.

GENTRY KIDD, geologist for the Stanolind Oil & Gas Company, has been transferred from Amarillo to San Antonio, Tex., and W. E. HENDERSON is being moved from Shawnee, Okla., to fill the vacancy at Amarillo.

T. N. ST. HILL, vice president of Petroleum Rectifying Company of California, who recently returned to his offices in Los Angeles from an extensive tour through the Gulf Coast, Mid-Continent and central states, is making another trip to various points throughout Texas where he will inspect a number of Petreco Electromatic De-Salting plants installed during the past year. While away, Mr. St. Hill will spend several days in El Paso and Houston, Tex.; and may decide to inspect other similar plants operating at points as far north as Wisconsin. He expects to return to Los Angeles about the end of June.

HARRY LEYENDECKER, chief scout for Tide Water Oil Company, and newly elected chairman of the executive committee of the National Oil Scouts Association, will have a big job on his hands this year in handling his company and association work. As chairman of the scouts' committee, he will be in charge of gathering all information and statistics for, and editing, the year book of the association. Harry started in the oil business with the old Marland Oil Company, as clerk in the district offices at Cisco, Tex.

J. ROLAND JOHNSTON has left the Burrell-Mase Engineering Company to join the engineering staff of the Stanolind Oil & Gas Company's producing department. Since 1923 Mr. Johnston has had practical experience in nearly every branch of the oil industry.

N. C. McGOWEN, president of the United Gas Public Service Company of Shreveport, La., has been out of the city for several days.

P. C. MURPHY, drilling superintendent of Phillips Petroleum Company, is now headquartered in Shreveport, La., instead of Bartlesville, Okla.

A. A. (GENE) EASON, auditor for the Henderson Company of Amarillo, Tex., and his family left Amarillo on June 12 for a vacation.

CHARLES CHAPMAN, with the Taubman Supply Corporation at Borger, Tex., has been transferred to the Wichita, Kans., office of the company.

W. C. SPOONER, consulting geologist of Shreveport, La., has been on a business visit to St. Louis, Mo., during the last week.

GLEN JORDAN, of the Southern Mineral Exploration Company of New York and Houston, Tex., is making a survey in the De Winton area, south of Calgary, Alberta.

JOSEPH S. IRWIN, consulting geologist of Calgary, recently addressed the Oil and Gas Shareholders Association in that city on "Some Facts and Fallacies Concerning the Oil Industry."

MILTON WILLIAMSON, president of Montreal-Alberta Oil Company, operating in the Wainwright field, visited Calgary recently en route to Toronto, Montreal and other points in eastern Canada.

DR. GUSTAV EGLOFF, director of research, Universal Oil Products Company, sailed from New York on June 14 for London, where he will represent the American Institute of Chemical Engineers at the World Petroleum Congress.

Always Was a Texan

From the very beginning of a forward-moving career, including all such minutiae as birth, schooldays, marriage and professional activities, John W. Newton, assistant general manager of refineries for the Magnolia Petroleum Company, has been a Texan. It wasn't a goal. It happened.

JOHN W. NEWTON

Forty-three years ago Mr. Newton was born in Bryan, Tex. He graduated from Bryan high school in 1908; from Allen Academy, Bryan, in 1909; from Texas A. and M. College, receiving a degree in chemical engineering, in 1912. In the two succeeding years he taught chemistry in the same college. On April 15, 1914, he started to work for Magnolia as chemist in the refining department in Beaumont, Tex., and he has been in the service of that organization ever since. In 1917 Mr. Newton was elevated to chief chemist. Two years later he was promoted to assistant superintendent of the Beaumont refinery. He became assistant to E. E. Plumly, general manager, in January, 1934. In February of the present year he was advanced to assistant general manager of refineries. The company has plants in Beaumont, Fort Worth, Corsicana and Luling, Tex.

In 1915 Mr. Newton married Anne Lee Ellis, of Libery, Tex. Their one son, John W. Newton, Jr., is a student in the University of Texas. Mr. Newton is active in the Rotary Club, Young Men's Business League and Chamber of Commerce in Beaumont; the Beaumont Country Club and the Texas A. and M. Ex-Students' Club.

MR. AND MRS. GEORGE H. RAWLINGS and MRS. F. H. STOVER of Chatham, Ontario, have returned from a trip to Toronto and Buffalo, N. Y.

LAFAYETTE M. HUGHES, of Denver, manager of the William E. Hughes Estate, is in the East to attend the graduation of his son from Yale University.

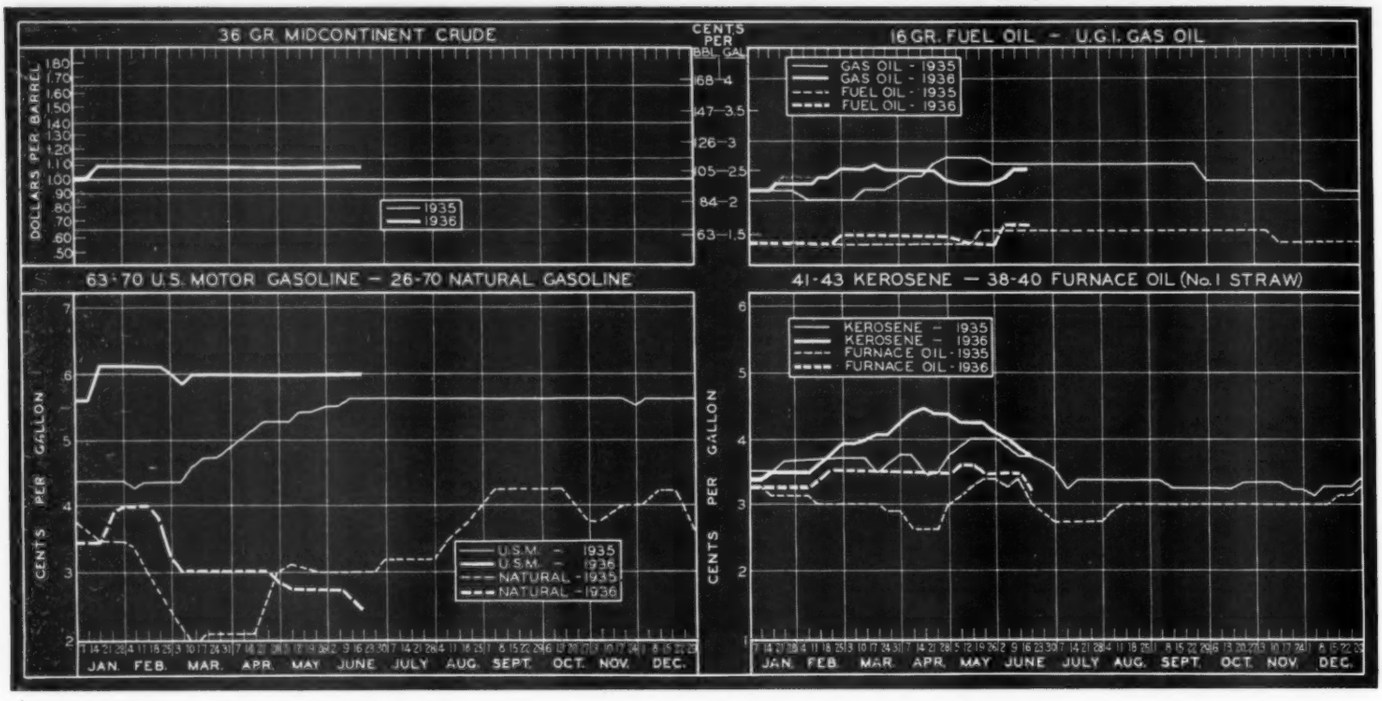
COL. R. B. HARKNESS, natural gas commissioner of Toronto, Ontario, recently made an official trip to Chatham and other points in the southwestern Ontario fields.

R. P. JACKSON, secretary of the Oil Conservation Board of Montana, whose headquarters are at Great Falls, was reappointed to that office when the board was reorganized recently.

DR. J. A. L. HENDERSON, of London, England, consulting engineer, has arrived on this side of the Atlantic and will spend the next six months in Canada and the United States on a business mission.

FRED FRESH and PAUL SCHAEFER, both with the Petroleum Engineering Company of Tulsa, are temporarily stationed at Rodessa, La., during the construction of the Glen Rose Gasoline Company's new plant there.

W. G. HELTZEL, general superintendent of the Stanolind Pipe Line Company, and a group of company engineers is in Wyoming, inspecting the northern sector of the company's line, extending from Teapot, Wyo., to Freeman, Mo., which the company will recondition and put in service for running stored crude from its Clayton tank farm, Converse County, Wyo., to its middle-western refineries. Some 12,000,000 bbls. of crude are stored at Clayton.


36 GR. MIDCONTINENT CRUDE
DOLLARS PER BARREL
CENTS PER BBL. GAL
1935
1936
16 GR. FUEL OIL - U.G.I. GAS OIL
GAS OIL - 1935
GAS OIL - 1936
FUEL OIL - 1935
FUEL OIL - 1936
63-70 U.S. MOTOR GASOLINE - 26-70 NATURAL GASOLINE
CENTS PER GALLON
U.S.M. - 1935
U.S.M. - 1936
NATURAL - 1935
NATURAL - 1936
41-43 KEROSENE - 38-40 FURNACE OIL (No. 1 STRAW)
KEROSENE - 1935
KEROSENE - 1936
FURNACE OIL - 1935
FURNACE OIL - 1936
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

Representative Mid-Continent Quotations on Crude Oil and Refined Products. Basis Oklahoma (Group 3)

Group 3 Gasoline Market Benefiting From Texas Centenary Celebration

By T. F. SMILEY

Regardless of what else it may accomplish, the Texas centennial celebration assuredly is helping many refiners and marketers in the Group 3 area to distend their gasoline gallonage. Reports show that since it opened June 6 there has been a pronounced pickup in demand, and it is declared that if the higher level of consumption is sustained till the close next November previous estimates of the motor fuel requirements for 1936 in Texas and perhaps a few other states will prove far too low. At Dallas, where the central celebration is taking the form of a world's fair, half a million visitors were estimated to have gone through the turnstiles last Friday, when President and Mrs. Roosevelt were guests. Attendances on other days are reported to have been heavy. Although most of the travel to and from the fair originates in Texas, the effect on gasoline sales is not confined to that state. Visitors are driving from almost every part of the country, more particularly, of course, from nearby states.

Gasoline Slightly Firmer

Although the spot gasoline market exhibited few signs of increased vigor, the feeling in the trade was that the market as a whole was somewhat firmer. Overproduction of both crude and gasoline, along with excessive total stocks, continued to cause uneasiness, but movement on contract was in such volume that no distress stocks were accumulating. The unwieldy inventories which in the aggregate make some 10,000,000 bbls. more than were on hand last year at this time are virtually all in the hands of major companies. Stocks of small independent refiners are reported to be well cleaned up. Those of larger organizations which are not classified as majors have been reduced steadily in the last two months.

Refined Oil Market Barometer

Arrival of the vacation season is showing results in motor fuel consumption. Current demand probably is exceeding expectations, with prospects for the summer excellent. Natural gasoline is experiencing its seasonal dip, with little likelihood of going lower. Heating and burning oils are being stored. Fuel oils are in steady demand. Lubricants show better tone.

MID-CONTINENT. Gasoline steadier. Naturals dull. Kerosene and tractor fuels soft.

EAST COAST. Gasoline substantially improved. Kerosene and furnace oils easy.

GULF COAST. Brighter tone in gasoline. Kerosene and burner oils sluggish.

PENNSYLVANIA. Gasoline and lubricants stronger. Fuel oil and kerosene softer.

CALIFORNIA. General market dull.

CHICAGO. Gasoline lacks aggressiveness. Burner oils easy. Gas oil steady.

Gratification is expressed over the situation which now obtains in East Texas. In that area there are said to be only 9 or 10 refineries shipping gasoline eligible to receive federal tenders. The explanation given is that most of the refiners are getting 4¾ cents for truck sales of third-grade gasoline to be retailed inside the state. This is an eighth-cent more than they would receive as a "resale" price for gasoline eligible for federal tenders. Furthermore, not only has truck business shot up, but intrastate tankcar shipments appear to be growing. Cooperation of East Texas refiners with law-enforcing agencies has gone far to establish a stabilized market in East Texas in the last year.

Natural gasoline was still wallowing around in the low price levels. Although, after losing another eighth from the quotations which ruled a week ago, it was manifesting a slightly steadier tone, nobody cared to say with positiveness that the bottom for the decline had been reached. Weakness was seen chiefly in the 26-70 and 18-pound grades. The demand for 14- and 12-pound material had quickened, and the 14-pound was said to be holding fairly well at a low of 3½ cents. The 12-pound was not revealing quite so firm an undertone. Although manufacturers reported 4 cents as the going price, it was said that some refiners who buy this grade regularly were able to fill their needs at slightly under that price.

Kerosene and Tractor Fuels Soft

Kerosene and tractor fuels were running into their seasonal soft spot. The latter were in the ravine which lies between the spring plowing season and the fall harvest season. Kerosene, along with the whole group of heating and burning oils, is entering the period in which bargain hunters are looking for favorable opportunities to store for next winter. Neither refiners nor dealers are likely to ignore the lesson taught in the closing months of last winter, when the pressing demand for furnace oils resulted in kerosene being shipped to fill them, and kerosene stocks were exhausted.

The lubricant group was in good position. Neutrals were especially strong, with seeming likelihood of higher prices soon. Steam-refined stocks were up. Fuel oils were firm, with railroads and utility plants calling for the heavy grades.

Substantial Improvement Is Shown in Eastern Coast Gasoline Market

NEW YORK, June 13.—The gasoline situation registered further substantial improvement during the past week, with the movement into consumption continuing well above previous expectations. As the result of a further reduction in stocks at refineries and at bulk stations, the trade is once more in an optimistic frame of mind following the period of uncertainty which spread through the markets several weeks ago. No doubt a large part of the improvement is due to the unusually favorable weather conditions which have prevailed steadily for an unbroken period of about three weeks, rather than to actual steps taken to reduce production and stocks. Nevertheless, the present statistical position of the eastern refined oil markets seems to be in a much healthier state now than at any previous time this year.

Not only is the underlying statistical position of the motor fuel market improved, but several weak spots which have caused the trade no little worry for some time have either disappeared or are now considered to be in a fair way toward early solution.

About May 1, last, three troublesome localities where severe retail price-cutting was current were threatening to become serious. These were the Philadelphia, New York and Boston metropolitan areas. In May the Philadelphia situation was corrected and the price-cutting which had spread to southern New Jersey subsided to negligible proportions. During the past week the Boston market improved to such an extent that major marketers felt justified in advancing tank-wagon and retail prices 1 cent per gallon. The market is still approximately 1 cent below the normal average for the surrounding territory. At the same time both tank-wagon and retail markets throughout New England were advanced one-half cent per gallon, evidencing the general scope of the improvement which has taken place in this territory. The advances of 1 cent in the Boston area and of one-half cent in New England generally went into effect on June 11.

The third and last troublesome area, namely metropolitan New York, now promises to be corrected in the very near future. The wave of price-cutting during which gasoline was sold as low as 7 gallons for 98 cents, retail, including the 5-cent tax, has now subsided to the point where only a few cut-price signs are in evidence, and it is confidently expected in the trade that an upward adjustment in the tank-wagon postings of the major companies may occur at any time. There seems also to be a distinct possibility that dealer margins may be reduced to 3 or 3½ cents per gallon, against the 5 or 5½-cent margins which have existed for some time.

In connection with the statistical position of the eastern gasoline market, it is pointed out that stocks on hand in the aggregate are larger at bulk terminals than at refineries, and that the bulk terminal stocks originate not only from eastern refining plants but also from refineries in the Mid-Continent area. Eastern refiners feel their present inventories are not excessive, but that the Atlantic Seaboard could get along with somewhat lower stocks at bulk stations than now exist. On the other hand, in view of the heavy demand for motor fuel, jobbers and retailers prefer to carry a heavier inventory than is absolutely necessary, rather than to be caught short.

During the past week local refiners reported a particularly heavy demand for bulk gasoline, and are inclined to add at least one-eighth of a cent to the present refinery price of 60-64.9 octane material on spot orders, bringing the price on such business to 6⅞ cents per gallon. Predictions are now made that the 7-cent price on all business which prevailed about one month ago will shortly be restored.

Reports of some of the larger gasoline marketing companies indicate that the May consumption of gasoline was so large as to justify an upward revision in estimates of consumption for the year. They also believe that in terms of anticipated demand, present stocks on hand throughout the country are much less excessive than they were at the beginning of May.

Kerosene and Furnace Oil Soft

In contrast with the general improvement in the motor fuel market, both kerosene and furnace oil are exhibiting a somewhat weak undertone. The kerosene tank-wagon market has been reduced one-quarter to one-half cent per gallon in many of the important cities of New York state and New England. A local price-war in the furnace oil market has developed. The latter, however, is evidently due more to sales efforts in connection with the campaign now under way to close contracts with consumers for future requirements, rather than to any underlying weakness in the statistical position of the fuel oil market.

A few furnace oil marketers appear to be holding aloof from the present market, doubting the advisability of making future contracts at too low a price, in view of their belief in the soundness of the statistical position of the fuel oil market. As a matter of fact, the heavier fuel oils are exhibiting a firm tone, including industrial fuel oil, gas oil and diesel oil. The bunker fuel oil market is also steady.

Lubricating oil prices have been holding firm. There has been some easing in the industrial demand. There has been no difficulty in maintaining prices, however, both cylinder and bright stocks holding at the advanced levels recorded some weeks ago.

The paraffin wax market is also somewhat steadier than it has been, responding in part to an improved demand for crude scale.

Gulf Coast oil exporters report little change in the situation. The export market is rather quiet. Prices are holding steady, however. Although there seems to have been little improvement in the demand for export cargoes, suppliers do not feel as inclined to offer price concessions as they did several weeks ago.

The international exchange situation has become more acute during the past week. Some temporary improvement in buying of gasoline in the Gulf Coast market on the part of French interests had been anticipated due to possible devaluation of the franc, but recent reports indicate France may avoid immediate devaluation by placing restrictions on the export of currency, or by other methods which have been in effect during recent years in some of the smaller European countries, such as Rumania. In this event, the tendency may be to restrict outside buying for a while, until the significance of new developments becomes more apparent.

Another factor in the Gulf export market is the tendency on the part of some independent European oil buyers to place their orders with companies operating refineries in the Dutch West Indies. The capacity of these plants exceeds 300,000 bbls. daily in the aggregate. At times the latter, which supply mostly the requirements of the large organizations which control them, have a surplus of gasoline and fuel oil on hand and are apparently willing to offer cargo lots for sale on a spot price basis. The real extent of this business is not known, but undoubtedly it is substantial at times.

Reports from European centers indicate a considerable improvement in political conditions, with business returning to a more normal basis now that Anglo-Italian tensions seems to have been considerably relieved. Although the outlook

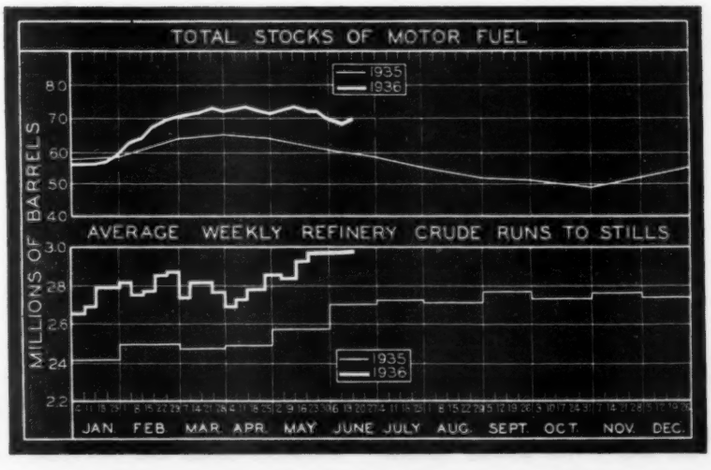
(Continued on Page 104)

A. P. I. Weekly Refinery Statistics

Week Ending June 13, 1936

	Capacity reporting (per cent)	Daily crude runs (bbls.)	Total gasoline stocks	Gas oil and fuel oil stocks
East Coast	100.0	536,000	19,699,000	9,155,000
Appalachian	94.8	101,000	2,592,000	466,000
Indiana, Illinois, Kentucky	95.9	420,000	10,141,000	3,852,000
Oklahoma, Kansas, Missouri	84.8	293,000	6,999,000	3,199,000
Inland Texas	48.5	107,000	1,528,000	1,749,000
Texas Gulf	96.8	608,000	7,887,000	7,476,000
Louisiana Gulf	96.4	114,000	1,600,000	2,047,000
North Louisiana and Arkansas	90.0	44,000	388,000	419,000
Rocky Mountains	61.9	49,000	1,460,000	739,000
California	92.6	514,000	13,642,000	71,956,000
Total reported	89.6	2,786,000	65,936,000	101,058,000
Estimated unreported	.....	189,000	4,732,000	2,941,000
*Estimated total	.....	2,975,000	70,668,000	103,999,000
*Estimated total previous week	.....	2,950,000	70,639,000	102,904,000
†June 30, 1936	.....	2,724,000	59,507,000	103,674,000

*Bureau of Mines basis currently estimated. †Monthly report, U. S. Bureau of Mines.



RETAIL OIL MARKETS

Tank-wagon and filling station prices on gasoline and kerosene furnished by the larger marketing firms

Prices as of June 16, 1936

Taxes

The gasoline quotations given in the following tables include the 1-cent federal tax, as well as state, county and city taxes. The gasoline is the regular or standard grade. In most areas a third grade and a premium grade are also available.

Discounts

Under the standard form of commercial consumer contract which went into effect March 1, 1934, save in California, Oregon, Washington, Arizona and Nevada, a discount of 1 cent a gallon off tank-wagon or 3 cents a gallon off retail prices is permitted for purchases between 4,000 and 10,000 gallons per month, or 4 cents a gallon off retail prices for purchases in lots of more than 10,000 gallons a month. The minimum delivery is 25 gallons.

Standard Oil Co. (Indiana)

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Chicago	15.5	17.5	4.0	10.1
Decatur, Ill.	16.0	18.0	4.0	10.1
E. St. Louis	15 7	17.7	4.0	9.8
Joliet	14.5	17.5	4.0	10.1
Peoria	16.0	18.0	4.0	10.1
Quincy	15.8	17.8	4.0	9.9
Davenport, Ia.	16.0	(†)	4.0	10.1
Des Moines	15.8	(†)	4.0	9.9
Mason City	16.2	(†)	4.0	10.3
Sioux City	16.0	(†)	4.0	10.1
Duluth, Minn.	16.8	18.8	4.0	10.9
Mankato	16.4	18.4	4.0	10.5
Minneapolis	16.4	18.4	4.0	10.5
LaCrosse, Wis.	17.4	19.4	5.0	10.6
Green Bay	17.7	19.7	5.0	10.8
Milwaukee	16.3	18.3	5.0	10.4
Madison	17.4	19.4	5.0	10 5
Detroit, Mich.	14.5	16.5	4.0	8.8
Grand Rapids	15.4	17.4	4.0	9.3
Saginaw	15.6	17.6	4.0	10.1
Evansville, Ind.	17.7	19.7	5.0	10.6
Indianapolis	17.9	19.9	5.0	10.8
South Bend	18.1	20.1	5.0	11.0
Fargo, N. Dak.	17.4	19.4	4.0	11.5
Huron, S. Dak.	17.9	19.9	5.0	11.0
Sioux Falls	17.4	19.4	5.0	10.5
Kans. City, Mo.*	15.4	17.4	4.0	8.0
Springfield	15.1	17.1	4 0	9.2
St. Louis	15.7	17.7	4.0	9.8
St. Joseph*	15.4	17.4	4.0	9.5
Wichita, Kans.	14.9	16.9	4.0	7.1
Bartlesville, Ok.	15.0	19.0	5.0	8.5

*State tax 2 cents, 1-cent city tax and 1-cent federal tax.

†Standard Oil Co. (Indiana) has leased all service stations in Iowa.

Discounts to dealers except in Iowa: 3½ cents on premium and regular and 2½ cents on third grade off service station prices; discounts to dealers in metropolitan Chicago one-half cent larger than rest of Standard of Indiana territory, namely 4 cents and 3 cents on respective grades. Dealers in Iowa sold at posted "Dealer Prices."

Stanolex Fuel Oil in Chicago

Effective June 1, 1936, f.o.b. Chicago tank-wagon prices: Range oil, less than 100 gallons, 8.75 cents; 100-149 gallons, 7.75 cents; 150 gallons and more, 7.25 cents. No. 1, less than 150 gallons, 7.5 cents; 150 gallons or more, 6.5 cents. Stanolex furnace oil, less than 150 gallons, 7.5 cents; 150 gallons or more, 6.5 cents. Stanolex fuel "A," less than 400 gallons, 5.75 cents; 400 gallons or more, 4.75 cents.

Southern District

STANDARD OIL CO. OF KENTUCKY

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Atlanta, Ga.	20.5	22.5	7.0	*13.5
Augusta	20.0	22.0	7.0	*13.0
Macon	20.0	22.0	7.0	*14.5
Savannah	18.5	20.5	7.0	*13.0
Birm'ham, Ala.	20.0	22.0	8.0	11.0
Mobile	21.0	23.0	9.0	10.0
Montgomery	23.0	24.0	9 0	14.5
Jackson, Miss.	20.0	22.0	7.0	*13.0
Vicksburg	19.5	21.5	7.0	*13.0
Jacksonville, Fla.	18.0	20.0	8.0	10.0
Miami	19.5	21.5	8.0	13.5
Pensacola	21.5	23.5	9.0	12.0
Tampa	18.0	20.0	8.0	12.5
Lexington, Ky.	19.0	21.0	6.0	11.0
Covington	18.5	20.5	6.0	10.5
Louisville	19.0	21.0	6.0	10.0
Paducah	18.0	19.0	6.0	8 5

*Includes 1 cent state tax. Montgomery, Ala., has a county tax of 1 cent per gallon, and a city tax of 1 cent per gallon on gasoline, in addition to state tax; and 1 cent per gallon on kerosene. Mobile, Ala., has a city gasoline tax of 2 cents per gallon; Birmingham, Ala., has a city gasoline tax of 1 cent per gallon. Pensacola, Fla., has a city gasoline tax of 1 cent.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Denver, Colo.	19.0	21.0	5.0	11.0
Pueblo	19.0	21.0	5.0	13.0
Grand Junction	21 5	23.5	5.0	15.0
Casper, Wyo.	19.5	21.5	5.0	11.5
Cheyenne	19.5	21.5	5.0	13.0
Butte, Mont.	21.0	....	6.0	14.5
Billings	22.5	24.5	6.0	14.5
Helena	22.5	24.5	6.0	17.5
Great Falls	22.5	24.5	6.0	14.5
Salt Lake, Utah	21.0	22.0	5.0	16.0
Twin Falls, Ida.	23 0	25.0	6.0	18.0
Boise	22.5	24.5	6.0	18.0
Albu'que, N. M.	18.5	20.5	*6.5	13.0

*Includes one-half cent city tax.

Discount to dealers with or without contract in Continental territory: Undivided dealer discount off service station price, 4 cents; divided dealer accounts, 3½ cents.

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
San Francisco	17.0	18.0	4.0	11.5
Los Angeles	16.5	17.5	4.0	9.0
Fresno, Calif.	17.5	18.5	4.0	11.0
Phoenix, Ariz.	21.0	22.0	6.0	‡16.0
Reno, Nev.	19 5	20.5	5.0	13.0
Portland, Ore.	19.5	20.5	6.0	13.5
Seattle, Wash.	19.5	20.5	6.0	13.5
Tacoma	19.5	20.5	6.0	13.5
Spokane	22.5	23.5	6.0	16.5

*Retail prices posted by Standard Stations, Inc., a subsidiary.

†Prices are at company's plant or depots, as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank-wagon lots except in Phoenix where discount is 1 cent.

‡Includes 5-cent state tax.

Atlantic Coast District

STANDARD OIL CO. OF NEW JERSEY

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Atl'tic City, N.J.	14.0	17.5	4.0	9.0
Newark	14 0	17.5	4.0	7.5
Annapolis, Md.	15.6	19.1	5.0	10.0
Baltimore	15.0	18.5	5.0	8.0
Cumberland	16.6	20.1	5.0	12.7
Wash'g'n, D. C.	13.0	16.5	3.0	9.0
Danville, Va.	17.5	21.0	6.0	12.9
Norfolk	16 0	19.5	6.0	11.3
Petersburg	16.5	20.0	6.0	11.7
Richmond	16.5	20.0	6.0	11.7
Raonoke	17.5	21.0	6.0	12 9
Charles'n, W. Va.	15.8	19.3	5.0	12.6
Parkersburg	15.1	18.6	5.0	11.2
Wheeling	15.0	18.5	5.0	12.2
Charlotte, N. C.	18.4	21.9	7.0	12.6
Hickory	18.9	22.4	7.0	13 0
Mt. Airy	18.7	22.2	7.0	12.8
Raleigh	18.0	21.5	7.0	12.1
Salisbury	18.5	22.0	7.0	12.7
Charleston, S.C.	17.0	20.5	7.0	11.3
Columbia	18.3	21.8	7.0	12.6
Spartanburg	18.7	22.3	7.0	12.9

Tank-wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at regular price less one-half cent. Discount for kerosene, 1 cent off tank-wagon price for 25 gallons or more under contract (contract not necessary in Baltimore) except in New Jersey, where no discount (if necessary) is given.

Nebraska

STANDARD OIL CO. OF NEBRASKA

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Omaha	18.4	20.4	6.0	10.4
McCook	19.1	21.1	6.0	11.1
Norfolk	18.8	20.8	6.0	10.8
North Platte	19.2	21.2	6.0	11.2
Scottsbluff	19.9	21.9	6.0	11.9

Note—Discounts to dealers: where service station gasoline prices are (maximum overall, including rent) as follows: Reliance, 2½ cents; Standard Red Crown, 3½ cents; Red Crown Ethyl, 3½ cents.

Where service station gasoline prices are below normal resellers' allowances are reduced one-half of the amount below normal, down to the following (minimum overall, including rent): Reliance, 2 cents; Standard Red Crown, 3 cents; Red Crown Ethyl, 3 cents. Discounts to consumers for tank-wagon deliveries covered only by standard commercial consumers contract, effective January 1, 1935.

Pennsylvania, Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Philadelphia, Pa.	16.5	17.5	5.0	9.5
Pittsburgh	17.5	19.5	5.0	10.0
Allentown	17.0	18.0	5.0	9.5
Erie	17.5	18.5	5 0	8.0
Scranton	16.75	17.0	5.0	10.0
Altoona	17.5	19.5	5.0	9.5
Dover, Del.	17.0	17.0	5.0	10.0
Wilmington	16.5	16 5	5.0	9.5
Springf'ld, Mass.	14.0	17.5	4.0	7.5
Worcester	13.5	17.0	4.0	7.75
Hartford, Conn.	14.5	18.0	4.0	7.0
New Haven	13.0	16.5	4.0	7.5
Providence, R. I.	12.0	15.5	3.0	7.0

Note—Tank-wagon prices are those applicable to consumers purchasing lots of 100 or more gallons in one delivery.

Central South District

STANDARD OIL CO. OF LOUISIANA

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
N. Orleans, La.	18 5	22.0	‡9.0	12.0
Baton Rouge	17.5	21.0	†7.0	11.5
Alexandria	18.5	22.0	†*8.0	11.0
Lafayette	19 0	22.5	‡*8.0	12.5
Lake Charles	19.0	22 5	†*8.0	11.0
Shreveport	17.0	20.5	†7.0	10.0
Knoxville, Tenn.	21.0	24.5	8.0	14.0
Memphis	19.0	22 5	8.0	11.0
Chattanooga	20.5	24.0	8.0	11.5
Nashville	20.0	23.5	8.0	10.0
Bristol	18.75	21.5	8.0	14.5

*Includes city tax of 1 cent.

†Includes 1-cent parish tax. ‡Includes 3-cent parish tax.

Tank-wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at dealer price less one-half cent.

Louisiana kerosene prices include 1-cent state tax.

New York and New England

SOCONY-VACUUM OIL CO., INC.

	Gasoline Post deal	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Albany, N. Y.	14.0	17.5	5.0	7.75
*Met. N. Y.:				
Manhtn., Bronx	14.2	19.2	5.0	7.0
Staten Island	14.2	19.2	5.0	7.0
Qu'ns & Br'klyn	14.2	19.2	5.0	7.0
Buffalo	14.5	18.0	5.0	8.0
Rochester	14.5	18.0	5.0	8.0
Syracuse	14.5	18.0	5.0	8.5
Boston, Mass.	13.5	17.0	4.0	7.0
Portland, Me.	15.0	18.5	5.0	7.5
Manch'ter, N. H.	15.5	19.0	5.0	7.75
Burlington, Vt.	16.0	20.0	5.0	8.0

*Does not include 2 per cent city sales tax which is calculated on basis of net retail price exclusive of state and federal taxes.

Southwestern District

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Dallas, Tex.	14.0	18.0	5.0	8.5
Fort Worth	14.0	18 0	5.0	8.5
Houston	14.0	18.0	5.0	8.5
San Antonio	14.0	18.0	5.0	8.5
El Paso	15.0	19.0	5.0	8.0
Muskogee, Ok.	15.0	19.0	5.0	8.0
Okla. City	15.0	19.0	5.0	8.0
Tulsa	15.0	19.0	5.0	8.0
Ft. Smith, Ark.	15.5	19.0	5.0	8.0
Little Rock	18.0	21.5	7.5	9.5
Texarkana	14.5	18.5	5.0	8.5

Naphtha

STANDARD OIL CO. (INDIANA)

	Tank wagon*
Oleum spirits	15.7
V.M.&P. naphtha	16.0
Cleaners' naphtha	15.0
Stanisol	15.0

*Prices include 3-cent Illinois tax, but not 1-cent federal tax or 2 per cent retail occupational tax.

Prices f.o.b. Chicago. Each price subject to discount of 1 cent per gallon for 150-gallon lots if covered by contract.

Ohio

STANDARD OIL CO. OF OHIO

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Ohio points	17.5	19.5	5.0	*13.5

*Includes state tax of 1 cent.

Canada*

Imperial 3-Star Gasoline
IMPERIAL OIL, LTD.

	Gasoline Tank wag.	Gasoline Serv. sta.	Gasoline Inc. tax	Kero. tank wag.
Hamilton, Ont.	21.0	23.5	6.0	17.0
Toronto, Ont.	21.0	23.5	6.0	17.0
Brandon, Man.	30.8	33.8	7.0	22.3
Winnipeg, Man.	29.2	32.2	7.0	20.7
Regina, Sask.	30.5	33.5	7.0	22.0
Saskatoon, Sask.	33.3	36.3	7.0	24.8
Edmonton, Alta.	32.7	35.7	7.0	24.2
Calgary, Alta.	30.0	33.0	7.0	21.5
Vancouver, B. C.	26.0	29.0	7.0	24.0
Montreal, Que.	19.5	22.0	6 0	17.5
St. John, N. B.	25.0	29.0	8.0	19.5
Halifax, N. S.	25.0	29.0	8.0	19.5

*Imperial gallon used in Canada.

Discount to dealers: Divided dealers pay 3 cents per gallon below station price; undivided dealers pay 4 cents per gallon below station price except in cities of Hamilton, Toronto and Montreal where discounts below station price are one-half cent per gallon less.

Retail Price Changes

Standard Oil Co. (Indiana) May 29 advanced tank-wagon and station gasoline .5 cent in Detroit; June 5 reduced tank-wagon and station gasoline 1 cent in Saginaw.

Standard Oil Co. of Kentucky May 29 reduced tank-wagon and station gasoline 1 cent in Birmingham.

Standard Oil Co. of New Jersey June 10 reduced tank-wagon and station gasoline .3 cent in Newark and 1 cent in Wheeling.

New York Market

(Continued from Page 103)

has many ramifications, it is believed by American oil exporters the natural improvement in peace-time consumption abroad should offset any abnormal requirements due to war preparations.

Negotiations between Texas Corp. and Standard Oil Co. of California designed to bring about joint marketing operations abroad and the provision of a larger outlook for Bahrein Island crude oil are regarded as favorable from the viewpoint of the marketing situation as a whole. Although Bahrein Island represents a new source of oil of substantial proportions which must find an outlet, the proposed deal with Texas Corp. and other factors seem to indicate this oil will continue to be marketed in an orderly manner.

Oil exporters also are watching developments in Venezuela, where the oil industry has recently been beset with labor difficulties. Although confident that the situation in this country will work out satisfactorily, nevertheless they feel the substantial production gains registered during recent months may be temporarily halted, and the export markets helped somewhat, for a time at least.

Pipe Prices

Pipe manufacturers announce a reduction of 6 per cent in the price of Grade D seamless casing effective June 16th.

John L. Dellinger, independent operator at Tyler, Tex., has gone with his family to spend the summer at Anondale, Minn. Mr. Dellinger was formerly with Shell Petroleum Corp. as assistant production manager in St. Louis, Mo.

PRICES OF REFINED PRODUCTS

All quotations f.o.b. plant in cars for interstate or export movement except as otherwise noted

Prices as of June 16, 1936

The following quotations are exclusive of the federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils.

Refinery Gasoline

OKLAHOMA (Group 3)—

U. S. Motor grades:

62 octane and below (3d. gr.)	.04¾	.05
63-67 octane	.05⅜	.05⅝
68-70 octane (regular)	.06	.06⅛
60-62 400 grades:		
62 octane and below	.04¾	.05
63-67 octane	.05⅜	.05⅝
68-70 octane (regular)	.06	.06⅛
64-66 375	.05	.05⅛
68-70 360	.05⅛	.05⅛

NORTH TEXAS—

U. S. Motor grades:

62 octane and below	.04¾	.04⅞
63-67 octane	.05⅜	.05⅝
68-70 octane (regular)	.06	.06⅛
60-62 400	.04⅞	.05
64-66 375	.05	.05⅛

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

U. S. Motor grades:

62 octane and below	.05⅝
63-67 octane	.06⅛
68-70 octane (regular)	.06⅝
60-62 400	.05⅝ .06

ARKANSAS (Ark., N. La., Miss. del.)—

U. S. Motor grades:

62 octane and below	.05⅝
63-67 octane	.06⅛
68-70 octane (regular)	.06⅝

CHICAGO (Based on Group 3)—

U. S. Motor grades:

62 octane and below	.04¾	.05
63-67 octane	.05⅜	.05⅝
68-70 octane (regular)	.06	.06⅛
60-62 400 grades:		
62 octane and below	.04¾	.05
63-67 octane	.05⅜	.05⅝
68-70 octane (regular)	.06	.06⅛
64-66 375	.05	.05⅛
68-70 360	.05⅛	.05¼

PENNSYLVANIA (inland refineries)—

58-60 U. S. Motor:	
Below 60 octane	.05⅝
60-64.9 octane	.06¾
65-70 octane	.07
64-66 375	.05¾
68-70 350	.06

CALIFORNIA (domestic movement)—

54-58 U. S. Motor	.06½	.07½
58-60 400	.07½	.08

EAST COAST—(domestic)—

U. S. Motor, below 60 octane:

*New York (Bayonne)	.06⅛
Baltimore	.06½
U. S. Motor, 60-64.9 octane:	
*New York (Bayonne)	.06¾
Philadelphia	.06¾
Boston	.06¾
Baltimore	.06½
Charleston, S. C.	.06½
U. S. Motor, 65 and above:	
*New York (Bayonne)	.07
Philadelphia	.07
Boston	.07
Baltimore	.06¾
Charleston, S. C.	.06¾

*All grades of gasoline one-eighth to one-fourth cent less for barge shipments. New York harbor prices are for New York and New England delivery. Prices for New Jersey delivery one-fourth cent lower.

GULF COAST (domestic)—

U. S. Motor grades:

Below 60 octane	.05⅝	.05¾
60-64.9 octane		.06
65 octane and higher	.06⅛	.06⅛

Naphtha

PENNSYLVANIA (inland refineries)—

50-52 450 (blending)	.05½
52-54 450 (blending)	.05½
54-56 450 (blending)	.05⅝

Natural Gasoline

OKLAHOMA (Group 3)—

Grade 26-70		.02½
Grade 18-55	.03	.03¼
Low vapor pressure grade:		
*14 lb. v.p. (max.)	.03½	.03⅝
*12 lb. v.p. (max.)		.04

*Nominal.

NORTH TEXAS—

Grade 26-70	.02¼	.02⅜
Grade 18-55	.02⅜	.03

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

Grade 26-70	.02⅜	.03

CALIFORNIA—

75-85 375-390	.06½	.07½

Tractor Fuel

OKLAHOMA (Group 3)—

40-42 gr., 315-325 i.b.p., 110 flash, 540-550 e.p.	.04	.04¼
41-43 gr., 300-350 i.b.p., 110-125, flash, 500-520 e.p.	.04¼	.04¼
46-48 gr., 210-230 i.b.p., 480 max. e.p.		.04⅜

Kerosene

(All kerosene water white)

OKLAHOMA (Group 3)—

41-43	.03⅜	.04
42-44	.04	.04½

NORTH TEXAS—

41-43	.03⅜	.04½

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

41-43	.04¼	.04⅜

ARKANSAS (Ark., N. La., Miss. del.)—

41-43	.04⅜	.04½

PENNSYLVANIA (inland refineries)—

45	.05¼	.05⅜
46	.05⅜	.05½
47	.05½	.05⅝

CHICAGO (Based on Group 3)—

41-43	.03⅜	.04
42-44	.04¼	.04⅜

CALIFORNIA (Pac. Coast market)—

38-40 high burning test	.03½	.05

NEW YORK (Bayonne, N. J.)—

*41-43	.04⅞

GULF COAST (domestic)—

41-43	.03⅞

*Barge price one-eighth cent lower.

Furnace Oil

OKLAHOMA (Group 3)—

No. 1 prime white, 38-42	.03½	.03⅝
No. 1 straw, 38-40	.03¼	.03⅜
No. 2 straw, 32-36	.02⅜	.02⅞
No. 2 dark, 32-36	.02⅝	.02⅞
No. 3, 28-32	.02¼	.02⅜
No. 3, 15 and above, 28-32	.02⅜	.02½

NORTH TEXAS—

No. 1 prime white, 38-42	.03½	.03⅝
No. 1 straw, 38-40	.03⅜	.03½

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

No. 2, 32-36	.02⅜	.03

ARKANSAS (Ark., N. La., Miss. del.)—

No. 2, 32-36	.03½	.03⅝
No. 3, 28-32	.03½	.03¼

CHICAGO (Based on Group 3)—

No. 1 prime white, 38-42	.03½	.03⅝
No. 1 straw, 38-40	.03⅜	.03½
No. 2 straw, 32-36	.03	.03¼
No. 2 dark, 32-36	.02⅞	.03⅛
No. 3, zero to 15, 28-32	.02¾	.03
No. 3, 15 and above, 28-32	.02⅝	.02½

NEW YORK (Bayonne, N. J.)—

*No. 1	.04⅞
*No. 2	.04¼
*No. 4	.03⅝

*Barge deliveries one-eighth to one-fourth cent under above, tankcar price.

Gas Oil and Fuel Oil

(Gas oil per gal., fuel oil per bbl.)

OKLAHOMA (Group 3)—

U.G.I. gas oil	.02½	.02⅝
No. 4, 24-28, low cold test	.95	1.05
No. 4, 15 and above, 24-28	.80	.85
No. 5, low cold test	.72½	.80
Below 18 fuel oil, industrial	.70	.75

NORTH TEXAS—

U.G.I. gas oil	.02¼	.02⅜
No. 4, 24-28, low cold test	.90	1.00
No. 5, low cold test	.72½	.80
Below 18 fuel oil, industrial	.65	.75

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

U.G.I. gas oil	.02⅝	.02⅞
10-14 fuel oil, industrial	.70	.75

ARKANSAS (Ark. N. La., Miss. delivery)

10-14 fuel oil, industrial	.60	.65

CHICAGO (Based on Group 3)—

U.G.I. gas oil	.02⅝	.02½
No. 4, 24-28	.95	1.00
No. 4, 15 and above, 24-28	.77½	.82½
No. 5, 18-22	.72½	.75
No. 6, 10-16	.62½	.67½

PENNSYLVANIA (inland refineries)—

36-40	.04⅝	.04⅝

CALIFORNIA—

Los Angeles:

30-34 gas oil, per bbl.	1.00	1.20
24 plus diesel	1.00	1.25
24 plus diesel (bunkers)	1.10	1.30
12-16 (bunkers at tidewater)	.85	.95
10-16 (cargo lots)	.80	.95
12-17 (tankcars)	.70	.95
San Joaquin Valley:		
10-18 (tankcars)	.65	.75
San Francisco:		
24 plus diesel, per bbl.	1.30	1.35
24 plus diesel (bunkers)		1.35
10-16 (bunkers)		1.00

GULF COAST—

28-30 gas oil	.03¼	.03⅜
28-30 diesel (bunkers)		1.50
Bunkers (bulk cargoes)		.80
Bunker C (bunkers)		.90

NEW YORK (Bayonne, N. J.)—

27 plus, gas oil	.04¼
28-30 diesel (lighterage 6¼ plus per bbl.)	1.65
28-30 diesel (tankers)	.04¼
*Bunker C (to ocean-going ships in N. Y. harbor)	1.05
Industrial fuel (tankcars)	.03¾

*Lighterage charge 5c bbl. additional.

Bright and Steam-Refined

OKLAHOMA (Group 3)—

Bright Stocks:

190-200 D, 15-25		.21½
150-160 D, 0-10		.18½
150-160 D, 15-25		.18
150-160 E, 15-25		.17½
100-110 D, 0-10		.17
Steam refined:		
631 green (treated)		.14
600 dark green (untreated)	.06	.07½

PENNSYLVANIA—

Bright Stocks (Pennsylvania grade No. 8 color, 145-50 at 510; 540-550 flash):

10 pour test	.24½	.25
15 pour test	.23½	.24
20 pour test	.22½	.23
25 pour test	.21½	.22
Steam refined:		
600	.13½	.14
650	.14½	.15
600 Pennsylvania flash	.15½	.16
630 flash	.17½	.18
600 Warren E filtered	.15½	.16

Neutral Oil

(Vis. at 100° F. except Pennsylvania and color N.G.A.)

OKLAHOMA (Group 3)—

Zero to 10 Cold Test:

150-3	.10
180-3	.11¼
180-4	.10¾
200-3	.11¾
200-4	.11¼
250-3	.13¾
250-4	.13¼
280-3	.14¾
280-4	.14¼
300-3½	.15¼
400-3½	.16
100-2 paraffin oil	.05¾
15-20 Cold Test:	
200-3	.10¾
200-4	.10¼
240-3	.12¾
240-4	.12¼
280-3	.13¾
280-4	.12¾

GULF COAST—

Pale Oils:

200-3	.06½	.07
300-3	.07	.07½
500-3½	.08	.08½
750-3½	.08½	.09
1,200-3½	.09	.09¼
2,000-4	.09¼	.09½
Red Oils:		
200-5-6	.06½	.06¾
300-5-6	.06¾	.07
500-5-6	.07½	.08
750	.08	.08½
1,200-5-6	.08½	.09

CALIFORNIA (moving to dom. market)

Pale Oils:

100-2½-3		.06
200-3½-3		.06¼
300-3-3½		.06½
400-3-4	.08½	.09¼
450-3-4	.09¾	.10
550-3-4	.10	.10¼
600-3-4	.10¼	.10½
Red Oils:		
200-4-5		.06
300-5-6		.06¼
350-5-6	.07	.08
400-5-6	.08	.08¼
450-5-6	.08¼	.08½
500-5-6	.08½	.09
600-5-6½	.09	.09½
700-6½ plus	.09¾	.10
750-6½ plus	.10	.10¼
900-6½ plus	.10¼	.10½

PENNSYLVANIA

150 vis. at 750° F., color, 400-405 flash:

Zero pour test	.20	.20½
10 pour test	.19	.19½
15 pour test	.18½	.19
25 pour test	.17½	.18
180 vis. at 70° F., 3 color:		
25 pour test	.20	.20½
200 vis. at 70° F., 3 color:		
Zero pour test	.23½	.24
10 pour test	.22½	.23
15 pour test	.22	.22½
25 pour test	.21	.21½

Wax and Petrolatum

(Prices per pound)

OKLAHOMA (Group 3)—

124-126 (a.m.p.) w.c. scale	.02⅜

PENNSYLVANIA—(inland refineries)—

122-124 (a.m.p.) w.c. scale	.0230	.0235
124-126 (a.m.p.) w.c. scale	.0235	.0240

NEW YORK—

Wax in bags fully refined:

123-125 (a.m.p.) wax		.0445
125-127 (a.m.p.) wax		.0455
128-130 (a.m.p.) wax		.0480
130-132 (a.m.p.) wax		.0505
133-135 (a.m.p.) wax		.0535
135-137 (a.m.p.) wax		.0560
124-126 (a.m.p.) w.s.	.0240	.0250
124-126 (a.m.p.) y.s.	.0240	.0245
Petrolatum in barrels, carload lots:		
Dark green		.01⅞
Amber	.02⅞	.03
Extra amber	.03	.03⅛
Lily white	.06⅝	.06¾
Snow white	.07¾	.07⅞
Cream	.05⅝	.05¾

Export Prices

GASOLINE

GULF COAST—

U. S. Motor	.05	.05⅛
60-62 400	.05⅛	.05¼
61-63 390	.05¼	.05⅜
64-66 375	.05⅜	.05½

LOS ANGELES—

U. S. Motor grades:		
53-55 octane		.04½
55-56 octane	.04½	.04¾
65-67 octane	.04¾	.05
67-69 octane	.05	.05¼
Above 69 octane	.05¼	.05½
65 and above 400 e.p.	.05½	.06

KEROSENE

GULF COAST—

41-43 prime white	.03⅞
41-43 water white	.04
44 water white	.04¼

LOS ANGELES—

41-43 water white	.04¾	.05¼

LUBRICANTS

(Pennsylvania Grade)

NEW YORK (f.a.s. in bbls.)—

Cylinder Stocks:		
600 Warren E	.21	.21½
600 S.R. unfiltered	.19	.19½
650 S.R. unfiltered	.19½	.20
600 flash S.R.	.20½	.21
630 flash S.R.	.23½	.24
Bright Stocks:		
8 color		.26½
6½ plus color in dilution		.26

NEUTRAL OIL

200-3 color	.26½	.27
150-3 color	.22½	.23

PARAFFIN WAX

NEW YORK (prices per pound)—

123-125 a.m.p.		.04125
125-127 a.m.p.		.0425
128-130 a.m.p.		.0450
133-135 a.m.p.		.0525
135-137 a.m.p.		.0550
Crude scale:		
124-126 w.s.	.0260	.0270
124-126 y.s.	.0240	.0245

CRUDE OIL PRICES

Oklahoma, Kansas, North Central and East Central Texas

(January 9, 1936)

East Texas*	$1.15
Van, Tex.†	1.02
Altus and Tipton, Okla.‡	1.08
Other fields (see gravity table).	

*All companies. †Pure Oil Co. ‡Gypsy Oil Co.

West Texas

Crane, Upton, Howard, Glasscock and Mitchell Counties	$ .80
Winkler County	.85
Lea County, N. Mex.	.85
Pecos County*	.85
Pecos shallow†	.75

*Shell Petroleum Co., Gulf Pipe Line Co. and Humble Oil & Refining Co. †Shell Petroleum Corp.

Note—For Humble, Magnolia and Texas Co.'s West Texas and Lea County prices see gravity table. Above prices are those of other buyers.

Rocky Mountain States

(Effective January 9, 1936)

Iles, Colo., light*	$1.06
Iles, Colo., heavy*	1.00
Greybull, Wyo.*	1.28
Torchlight, Wyo.*	1.28
Grass Creek, Wyo., light*†	1.28
Grass Creek, Wyo., heavy*†	.72
Hamilton Dome, Wyo.*	.67
Elk Basin, Wyo., light *†	1.28
Frannie, Wyo., heavy*	.72
Frannie, Wyo., light (Feb. 24, 1936)*	.78
Hogback, N. Mex.*	1.21
Pondera, Mont.* (Jan. 25, 1936)	1.05
Salt Creek, Dutton Creek and Midway, Wyo., take Stanolind's Oklahoma prices on a gravity basis.	
Big Muddy, Wyo.†	1.11
Rock Creek, Wyo.†	1.12
Artesia, N. Mex. (Dec. 1, 1933)‡	.75
Maljamar, N. Mex. (Sept. 29, 1933)‡	.75
Fort Collins and Wellington, Colo.‡ (Jan. 9, 1936)	See Note
Florence, Colo.	.98
Lance Creek, Wyo.	.85
Lost Soldier, Wyo. (Sept. 30, 1933)	.88
Hudson, Wyo. (June 2, 1931)	.65
Sunburst, Mont. (June 5, 1936)	1.15
Cat Creek, Mont.	1.28
Cut Bank, Mont.	1.35

*Stanolind Oil & Gas Co. †Ohio Oil Co. ‡Continental Oil Co.

Note—Fort Collins and Wellington are not posted, price 5 cents under quotation of Salt Creek crude of like gravity (Fort Collins 36°; Wellington 33°). *Stanolind Oil & Gas Co. †Ohio Oil Co. ‡Continental Oil Co. Cut Bank by Toronto Pipe Line Co.

Southwest Texas

(January 9, 1936)

Saxet	$ .90
Mirando	.85
Pettus	1.25
Salt Flat*	.97
Salt Flat†	.97
Darst Creek*	.97
Darst Creek†	.97
Luling	.90
Lytton Springs	1.00
Duval County	.85

*Humble Oil & Refining Co. †Magnolia Petroleum Co., Gulf Pipe Line Co. and Texas Co. ‡Shell Petroleum Corp. Saxet posted by Humble and Texas; Mirando by Humble and Magnolia; Pettus by Humble; Salt Flat by Humble; Luling and Lytton Springs by Magnolia; Duvall by Texas Co.

Middle Western States

OHIO OIL CO.

Lima (Jan. 10, 1936)	$1.25
Illinois (Jan. 9, 1936)	1.23
Princeton, Ind. (Jan. 9, 1936)	1.23
Midland, Mich. (Jan. 13, 1936)*	1.32
Midland, Mich. (June 15, 1936)†	1.42
West Branch, Mich. (June 15, 1936).	1.26
Muskegon, Mich.	1.00
Eastern Kentucky:	
Big Sandy River (Jan. 9, 1936)	1.30
Kentucky River (Jan. 9, 1936)	1.38
Western Kentucky (Jan. 9, 1936)	1.23

*Posted by Pure Oil Co. and includes Greendale, Porter, Beaverton and Crystal crudes. West Branch, Mich., by Simrall Corp. Eastern Kentucky crude purchased by Ashland Refining Co., Ashland, Ky. Oceana posted by Old Dutch Refining Co. and Naph-Sol Refining Co. †Simrall Corp.

Gulf Coast

(January 9, 1936)

Cleveland, Tex.	$1.10
Hardin, Tex.	1.03
Greta, Tex.	.90
Refugio, Tex., heavy	.90
Tomball, Tex.	1.30
LaFitte, La.	1.12
Livingston, Tex.	1.15
Bosco, La. (Jan. 16, 1936)	1.05
Evangeline, La.	1.07
Welsh, La.	.96

Cleveland and Hardin by Magnolia; Greta by Texas Co.; Refugio by Humble; Tomball by Humble and Magnolia; LaFitte by Texas Co.; Bosco by Pure; Evangeline and Welsh by Stanolind Oil & Gas Co.; Livingston by Shell Petroleum Corp.

North Louisiana and Arkansas

Smackover, all grades (Jan. 10, 1936)*	$.75
Smackover, all grades (Jan. 9, 1936)†	.80
Tullos and Urania (Jan. 10, 1936)	.97
Nevada, Ark. (Jan. 10, 1936)	.65
El Dorado East Field (Jan. 16, 1936).	.75
Converse, Holly, Pleasant Hill and Zwolle (Jan. 10, 1936)*	1.10
Lisbon, Ark. (Jan. 10, 1936)*	1.10
Elm Grove, La. (Jan. 10, 1936)	.80

*Standard Oil Co. of Louisiana, Gulf Refining Co., Louisiana Oil Refining Co., Texas Co. (effective January 14) and Magnolia Petroleum Co. (effective January 16).

Crude Prices by Gravities

Gravity—	Oklahoma, Kansas, and Salt Creek, Wyo.	Central and North Texas	East Central Texas	North Louisiana, Arkansas	Gray County, Texas	Carson and Hutchinson Counties, Texas	Conroe, Texas	West Texas and Lea County, New Mexico	Gulf Coast, Texas and Louisiana	Anahuac and Dickinson, Texas	Iowa and Cameron Meadows, Texas
Below 20	....	....	....	....	....	....	....	....	$.92	....	$.82
20-20.9	....	....	....	....	....	....	....	....	.94	....	.84
21-21.9	....	....	....	....	....	....	....	....	.96	....	.86
22-22.9	....	....	....	....	....	....	....	....	.98	....	.88
23-23.9	....	....	....	....	....	....	....	....	1.00	....	.90
24-24.9	....	....	....	....	....	....	....	....	1.02	....	.92
Below 25	$.86	....	....	$.78	....	....	....	....	....	....	....
25-25.9	.88	....	....	.80	....	....	....	....	1.04	....	.94
26-26.9	.90	....	....	.82	....	....	....	....	1.06	....	.96
27-27.9	.92	....	....	.84	....	....	....	....	1.08	....	.98
28-28.9	.94	....	....	.86	....	....	....	....	1.10	....	1.00
Below 29	.94	$.84	$.91	....	....	....	....	$.75	....	....	....
29-29.9	.96	.86	.93	.88	....	....	....	.76	1.12	....	1.02
30-30.9	.98	.88	.95	.90	....	....	....	.78	1.14	$1.04	1.04
31-31.9	1.00	.90	.97	.92	....	....	....	.80	1.16	1.06	1.06
32-32.9	1.02	.92	.99	.94	....	....	....	.82	1.18	1.08	1.08
33-33.9	1.04	.94	1.01	.96	....	....	....	.84	1.20	1.10	1.10
34-34.9	1.06	.96	1.03	.98	....	....	....	.86	1.22	1.12	1.12
Below 35	....	....	....	....	$.86	$.81	....	....	....	....	....
35-35.9	1.08	.98	1.05	1.00	.88	.83	$1.24	.88	1.22	1.14	1.15
36-36.9	1.10	1.00	1.07	1.02	.90	.85	1.26	.90	1.22	1.16	1.12
37-37.9	1.12	1.02	1.09	1.04	.92	.87	1.28	.90	1.22	1.18	1.12
38-38.9	1.14	1.04	1.11	1.06	.94	.89	1.30	.90	1.22	1.20	1.12
39-39.9	1.16	1.06	1.13	1.08	.96	.91	1.32	.90	1.22	1.22	1.12
40 and over	1.18	1.08	1.15	1.10	.98	.93	1.34	.90	1.22	1.24	1.12

Magnolia Petroleum Co. in the East Central Texas field pays 7 cents per barrel less than above posted prices in that field.

Urania by H. L. Hunt Co. and Louisiana Oil Refining Co. Nevada by Standard of Louisiana. El Dorado East field by Magnolia Petroleum Co. Phillips Petroleum Co. (effective January 17), posts 75 cents for all grades in Union and Ouachita Counties, Arkansas.

Eastern States

TIDE WATER PIPE CO.

(Effective Jan. 13, 1936)

Bradford, Pa.	$2.45
Allegany, N. Y.	2.45

SOUTH PENN OIL CO.

(Effective Jan. 13, 1936)

Pennsylvania Grade Oil in National Transit Lines (Bradford field)	2.45
Pennsylvania Grade Oil in Southwest Pennsylvania Lines	2.17
Pennsylvania Grade Oil in Eureka Pipe Line lines	2.12
Pennsylvania Grade Oil in Buckeye Pipe Line lines	1.97
Corning Grade Oil in Buckeye Pipe Line Co.'s lines	1.42

PENNZOIL CO.

(Effective Jan. 13, 1936)

Pennsylvania Grade Oil in National Transit Lines:	
Group A — Includes Cochran, Franklin, Hamilton and Doolittle districts.	2.42
Group B — Includes Titusville district.	2.41
Group C — Includes Turkey and Tidioute districts.	2.40
Group D — Includes Bear Creek and Porkey districts.	2.39
Group E — Includes Eldeneau, Bull Creek, Rough Run, Carbon, Dipner, Bredlin, McJunkin, Jameson, Kenerdell, Emlenton, Tiona, Lacey and Kinzua districts. Price depends on lengths of pipe line haul to plant at Oil City.	2.38

PURE OIL CO.

(Effective Jan. 13, 1936)

Cabin Creek, W. Va.	$2.12
Bradford Hollow, W. Va.	2.12
Kelly Creek, W. Va.	2.12

Canada

Ontario (Sept. 9, 1933):	
Petrolia*	$2.10
Oil Springs	2.17
Turner Valley (Feb. 3, 1936):†	
Clear naphtha	2.70
Discolored naphtha	2.46
Crude oil, 50 gravity	2.32
Crude oil, 45 to 49.9	2.12
Crude oil, 40 to 44.9	1.55

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

Mexico

Panuco*	$ .74

*F.o.b. ship, based on April transactions and exclusive of production and export taxes and bar dues.

Service Station

A story that is going the rounds of Missouri newspapers concerns the alert filling station attendant who had checked the oil and gas and was cleaning the windshield when the woman driver asked: "And would you mind going over Willie's face once?"

STANDARD OIL CO. OF CALIFORNIA

Crude oil prices at the well effective March 7, 1936

Gravity—	Signal Hill (Long Beach)	Seal Beach	Alamitos Heights	Huntington Beach	Inglewood	Playa del Rey	Olinda-Brea Canon	Athens-Rosecrans	Dominguez	Elwood Terrace	Torrance	Richfield	Whittier East Coyote (La Habra)	Montebello	West Coyote Hills	Santa Fe Springs	Mountain View	Elk Hills	Buena Vista Hills Midway-Sunset except Lakeview Area	Lakeview Area	Lost Hills	Coalinga	Wheeler Ridge	Kettleman Hills
14-14.9	$.80	$.79	$.74	$.78	$.79	$.80	$.76	....	....	....	$.80	$.76	$.76	$.77	$.78	....	....	$.65	$.70	$.65	$.70	$.70	....	....
15-15.9	.80	.79	.74	.78	.79	.80	.76	....	....	....	.80	.76	.76	.77	.78	....	....	.65	.70	.65	.70	.70	....	....
16-16.9	.80	.79	.74	.78	.79	.80	.76	....	....	....	.80	.76	.76	.77	.78	....	....	.65	.70	.65	.70	.70	....	....
17-17.9	.80	.79	.74	.78	.81	.80	.76	....	....	....	.80	.76	.76	.77	.78	....	....	.65	.70	.65	.70	.70	....	....
18-18.9	.80	.79	.74	.78	.84	.80	.78	....	....	....	.82	.76	.76	.77	.78	....	....	.65	.76	.65	.70	.70	....	....
19-19.9	.82	.79	.74	.82	.87	.84	.81	....	....	....	.85	.76	.78	.77	.78	....	$.70	.66	.74	.66	.74	.71	$.70	....
20-20.9	.85	.79	.74	.85	.90	.88	.84	....	....	....	.88	.78	.82	.77	.80	....	.70	.68	.78	.68	.78	.72	.70	....
21-21.9	.88	.79	.74	.89	.93	.93	.88	....	....	....	.91	.80	.85	.77	.84	$.78	.73	.71	.82	.71	.82	.74	.70	....
22-22.9	.92	.82	.74	.92	.96	.98	.92	....	....	....	.93	.84	.89	.79	.88	.78	.77	.74	.87	.74	.86	.78	.72	....
23-23.9	.95	.86	.77	.96	.99	1.02	.96	$.84	$.79	....	.96	.88	.93	.82	.92	.78	.80	.77	.92	.77	.90	.82	.76	....
24-24.9	.99	.91	.80	1.00	1.02	1.06	.99	.88	.81	....	.99	.91	.96	.85	.96	.82	.84	.80	.97	.80	.94	.86	.79	....
25-25.9	1.02	.95	.82	1.03	1.05	1.11	1.03	.93	.83	....	1.02	.95	....	.89	.99	.86	.88	.83	1.01	.83	.98	.90	.82	....
26-26.9	1.06	1.00	.85	1.07	1.09	1.16	1.06	.98	.86	....	1.05	.98	....	.92	1.03	.90	.91	.86	1.06	.86	1.02	....	....	....
27-27.9	1.10	1.05	.88	1.11	1.12	....	1.10	1.03	.88	....	....	1.02	....	.96	1.06	.95	.95	.88	1.10	.88	1.06	....	....	....
28-28.9	1.14	1.10	.90	1.14	1.15	....	1.14	1.07	.90	....	....	1.06	....	.99	1.10	.99	.99	.91	1.15	.91	1.10	....	....	....
29-29.9	1.17	1.15	.93	1.18	1.18	F.O.B.	1.17	1.12	.93	....	....	1.09	....	1.03	1.14	1.03	1.02	.94	1.20	.94	1.14	....	....	....
30-30.9	1.21	1.19	.95	1.22	1.21	our	1.21	1.17	.95	F.O.B.	....	....	....	1.07	1.17	1.08	1.06	.97	1.25	.97	1.18	....	....	....
31-31.9	....	....	....	....	1.24	Pipe	1.24	1.22	.97	Ship	....	....	....	1.11	1.21	1.12	1.09	.99	1.29	.99	....	....	....	....
32-32.9	....	....	....	....	1.27	Line	1.27	1.27	1.00	....	....	....	....	1.14	1.25	1.16	1.13	1.02	1.34	1.02	....	....	....	....
33-33.9	....	....	....	....	....	....	....	1.32	....	$1.28	....	....	....	1.18	1.28	1.20	1.17	1.04	1.38	1.04	....	....	....	$1.19
34-34.9	....	....	....	....	....	....	....	1.37	....	1.32	....	....	....	1.22	1.32	1.25	1.20	....	....	....	....	....	....	1.22
35-35.9	....	....	....	....	....	....	....	1.42	....	1.35	....	....	....	1.25	....	1.29	....	....	....	....	....	....	....	1.27
36-36.9	....	....	....	....	....	....	....	1.46	....	1.39	....	....	....	1.29	....	1.33	....	....	....	....	....	....	....	1.31
37-37.9	....	....	....	....	....	....	....	1.51	....	1.43	....	....	....	1.32	....	1.37	....	....	....	....	....	....	....	1.35
38-38.9	....	....	....	....	....	....	....	1.56	....	....	....	....	....	1.36	....	1.42	....	....	....	....	....	....	....	1.39
39-39.9	....	....	....	....	....	....	....	1.61	....	....	....	....	....	1.40	....	....	....	....	....	....	....	....	....	1.43
40-40.9	....	....	....	....	....	....	....	1.66	....	....	....	....	....	1.43	....	....	....	....	....	....	....	....	....	....

Newhall, McKittrick, Kern River and Round Mountain 70 cents for all grades. Kern Front 70 cents for all grades.

MARKET RECORD, ACTIVE OIL STOCKS

Compiled by Carl H. Pforzheimer & Co., 25 Broad Street, New York City. Members New York Stock Exchange and New York Curb Exchange

New York Stock Exchange

1936 High	1936 Low	Week ended June 12 Sales	High	Low	Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	Dividends paid in 1935	1935 High	1935 Low	1934 High	1934 Low
125½	75	2,000	94¾	93½	93½	Amerada Corp.	788,675	N.P.	50cQ	4-30-36	$2.00	80	48½	55⅝	39
35⅛	26⅝	5,300	28½	27⅛	28⅜	Atlantic Refining	2,664,904	$25	25cQ	6-15-36	1.00	28	20½	35¼	21½
20	14⅛	11,900	16½	15½	15⅞	Barnsdall Corp.	2,131,090	$5	15cQ†	5-1-36	‡.20	14¾	5⅞	10	5⅞
21⅝	14	81,000	20¼	18¾	20¼	Columbia Gas & Elec.	11,610,036	N.P.	20c	5-15-36	.20	15¾	3⅜	19¼	6⅝
15¼	11½	40,700	12⅜	11½	12	Consolidated Oil Corp.	§3,983,287	N.P.	25c	4-7-36	.25	12¼	6½	14¼	7¼
38½	28⅛	10,400	30	28¼	28¾	Continental Oil of Delaware	4,682,671	$5	25c	7-31-36	.62½	35	15⅞	22¾	15¾
34¾	22	1,300	25⅝	24	25½	General Asphalt	387,149	$10	25c	12-17-35	.25	22½	11¾	23½	12
12¼	6⅜	15,900	8¾	8	8¼	Houston Oil (new)	1,098,618	$25	....	10-17-30	....	7	1½	5⅝	2½
23	17¼	6,700	19⅛	18½	19⅛	Mid-Continent Petroleum	1,843,872	$10	40cSA	6-1-36	.40	20½	9½	14¾	9⅛
26¼	16¾	1,200	17¾	16¾	17⅝	Mission Corporation	1,399,345	N.P.	....	.....	....	17¾	10⅜	..	..
40¾	19⅞	2,000	39¼	38	38	National Supply of Delaware	382,591	$25	....	5-15-31	....	20⅞	9	21⅛	10
17½	12½	7,100	13¼	12⅝	12¾	Ohio Oil Co.	6,563,377	N.P.	25cSA	6-15-36	.30	14¼	9¼	15⅞	8½
18	11¾	600	12¾	12¼	12¼	Pacific Western Oil	1,000,000	N.P.	40c	11-30-34	.25	14	6¾	9⅜	5½
4¼	1⅜	300	2⅞	2⅝	2⅝	Panhandle P. & R.	198,770	N.P.	....	.....	....	1⅞	½	2½	⅝
49⅜	38⅛	11,900	41¼	39⅜	40⅝	Phillips Petroleum	4,152,836	N.P.	50cQ¶	6-1-36	1.25	40	13¾	20¾	13⅜
16½	11⅞	2,700	14⅜	13¾	13⅞	Plymouth Oil Co.	1,050,000	$5	25c	6-30-36	.25	13	6½	16¾	7¼
24¾	16¼	34,500	17½	16⅜	16½	Pure Oil Co.	3,038,370	N.P.	....	9-1-30	....	17	5⅞	14⅞	6⅛
43⅝	30¾	1,200	32¼	31⅜	31¾	Seaboard Oil of Delaware	1,244,283	N.P.	25cQ	6-15-36	1.00	36⅞	20¾	38⅜	20¾
19¼	14¾	5,900	17¼	16½	17	Shell Union Oil	13,070,625	N.P.	....	6-30-30	....	16½	5½	11½	6
120⅛	110½	2,800	120⅛	119	119⅛	Shell Union Oil pfd.	400,000	$100	....	7-1-31	....	111	63⅛	89	57
6¾	4⅝	5,700	5	4¾	4¾	Simms Petroleum	461,698	$10	1.00 liq.	1-27-36	11.75 liq.	18¾	4¾	17⅛	7¼
31½	19¼	900	23⅜	22⅜	23⅜	Skelly Oil	1,008,514	$15	....	12-15-30	....	20½	6½	11½	6
17	12½	39,600	13	12¾	12¾	Socony-Vacuum	31,151,075	$15	20cSA	3-16-36	.30	15¾	10⅝	19⅞	12½
47¾	35⅜	21,700	36½	35⅜	35⅞	Standard Oil of California	13,014,754	N.P.	25cQ†	6-15-36	1.00	41⅛	27¾	42⅞	26½
40⅛	32¾	14,200	34¾	33	34	Standard Oil (Indiana)	15,215,677	$25	25cQ†	6-15-36	1.00	33⅜	23	32¾	23¼
30	25	500	25	25	25	Standard Oil of Kansas	200,000	$10	50cQ	10-31-34	....	32	20	41	26
70	51⅛	22,400	58⅞	57¼	57½	Standard Oil of New Jersey	25,856,081	$25	75cSA¶	6-15-36	‖1.25	52⅜	35¾	50⅛	39¼
91	72	300	78	77	78¼	Sun Oil	1,733,013	N.P.	25cQ	6-15-36	$1 & 7% Stk.	77	60½	74¼	51½
39½	28⅞	16,200	31⅞	31⅛	31½	Texas Corp.	9,340,069	$25	25cQ	7-1-36	1.00	30¼	16½	29⅜	19⅝
15¼	7½	6,100	11⅞	10	11⅛	Texas Pacific Coal & Oil	880,703	$10	....	12-31-29	....	9¼	3¼	6½	2½
19⅛	14¾	8,800	15½	15	15¼	Tide Water Associated	5,642,342	N.P.	15cQ	6-1-36	....	15⅞	7⅝	14⅜	8
106½	100⅝	800	105	104½	104⅝	Tide Water Associated pfd.	626,221	$100	$1.50Q	4-1-36	$6.50	104½	84	87	64½
28½	20⅞	3,100	22¼	21⅛	22¼	Union Oil of California	4,386,070	$25	25cQ	5-9-36	1.00	24	14¾	20½	11½
31⅝	22⅝	1,500	24⅝	24	24	Union Tank Car Co.	1,200,000	N.P.	30cQ	6-1-36	1.20	26½	20⅞	25¾	15⅝
5¼	2¾	500	4	3⅞	4	Wilcox Oil & Gas	424,839	$5	....	5-10-28	....	3⅛	1	5¾	2

*Ex-dividend. †Plus extras. ‡Also 50 per cent in stock of Barnsdall Ref. §Partly on account of accumulation. ‖Dividend 4/75 Mission Corp. paid 3-15-35. ¶Includes extras.

New York Curb

1936 High	1936 Low	Week ended June 12 Sales	High	Low	Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	Dividends paid in 1935	1935 High	1935 Low	1934 High	1934 Low
20¼	13¼	5,700	16⅛	15	15⅛	Bridgeport Machine Co.	150,000	N.P.	....	5-1-30	....	14⅛	3¾	3¾	½
50	39¾	150	41	41	41	Buckeye Pipe Line Co.	200,000	$50	75cQ	6-15-36	$3.00	42½	30½	38	26
4⅞	2½	3,000	3⅛	2¾	2⅞	Carib Syndicate	799,020	25c	....	.....	....	4¼	1⅝	5½	1½
124¾	105	300	113	110¼	113	Chesebrough Mfg. Co.	120,000	$25	$1.50Q	6-29-36	6.50	157	115	150	116
7⅜	3	50,100	4⅝	4⅛	4½	Cities Service	37,804,394	N.P.	....	6-1-32	....	3¼	¾	4¼	1¼
4	1⅜	4,600	2⅝	2⅛	2⅛	Colon Oil	2,200,000	N.P.	....	.....	....	2⅛	½	3¼	½
4⅛	1½	6,800	2⅝	2⅛	2⅛	Cosden Oil	399,687	$1	....	.....	....	1½	¼	3⅞	½
34¾	19⅞	13,700	26½	25	25½	Creole Petroleum	6,974,356	$5	20c	12-31-35	.20	23¾	10	14⅜	9⅝
12	9	No sales ..	..	..	..	Darby Petroleum	509,696	$5	25cSA	1-15-36	.50	8⅞	4	7½	4⅛
4⅜	1⅞	300	3⅛	3	3⅛	Derby Oil & Refining	263,162	N.P.	....	.....	....	2	¾	2¼	1
44	39	No sales ..	..	..	..	Eureka Pipe Line	50,000	$50	$1Q	5-1-36	4.00	38	33¼	37	30
98	72	2,100	77½	75¼	76½	Gulf Oil Corp.	4,538,101	$25	25c	7-1-36	....	74¾	50¼	76¾	49¾
76½	57	3,400	58⅝	57½	58	Humble Oil & Refining (new)	8,923,935	N.P.	25cQ	7-1-36	1.25	64	44	49½	33¼
24½	20	7,600	21¼	20½	20⅝	Imperial Oil of Canada	26,919,871	N.P.	62½cSA†‡	6-1-36	1.25	22½	15⅜	17⅞	12⅝
9¼	5½	400	7	7	7	Indiana Pipe Line	300,000	$10	20cSA	5-15-36	.35	6⅛	3⅝	6⅞	3⅝
39⅝	33½	2,500	36⅞	36¼	36⅜	International Petroleum	14,247,088	N.P.	$1.25†‡	6-1-36	2.50	39¾	28	33⅜	19⅝
15⅜	9⅞	3,900	12⅜	12	12¼	Louisiana Land & Exp.	3,000,000	N.P.	10cQ	3-16-36	.10	11⅜	4⅜	5	2⅛
15	7⅜	300	11	10¾	11	Lion Oil Refining	270,000	N.P.	....	10-27-30	....	8⅛	3½	6	3⅜
14¼	9⅞	3,500	11⅜	10¾	11	Lone Star Gas	5,382,723	N.P.	20cSA	8-15-36	.30	10⅞	4½	8⅝	4¼
8⅜	5	1,300	6⅜	6⅛	6	Mountain Producers	1,682,182	$10	30cSA	7-1-36	.90	5¾	4¼	5½	4
23	17⅝	2,200	19¼	18½	18¾	National Fuel Gas	3,810,183	N.P.	25cQ	4-15-36	1.25	20	11¾	18⅛	13⅛
15¾	9¼	500	9½	9¼	9½	National Transit	509,000	$12.50	40cSA	6-15-36	.75	10⅝	6¾	9½	7
4½	2⅞	800	3	3	3	New Bradford Oil	1,445,202	$5	10cSA	5-15-36	.20	3¼	2	2½	1⅜
6⅝	1⅝	No sales ..	..	..	..	New Mexico and Arizona	1,000,000	$1	....	.....	....	2½	1	2¾	1
6¼	4½	100	4⅞	4⅞	4⅞	New York Transit	100,000	$5	15cSA	4-15-36	.30	4⅞	3	4¾	3
9¼	6¼	No sales ..	..	..	..	Northern Pipe Line	120,000	$10	15cSA	7-1-36	.50	8	5¼	7	4⅝
6⅝	3¼	15,500	6⅛	5⅝	5⅝	Pantapec Oil	1,608,700	N.P.	....	.....	....	4⅜	1¾	2⅝	⅞
19¼	4½	2,100	15	14⅜	14⅜	Root Petroleum Co.	336,045	$1	....	.....	....	5	1½	..	..
4¾	1⅞	1,000	3¼	3	3¼	Ryan Consolidated	296,931	N.P.	....	.....	....	2½	⅝	3⅜	⅞
10	7	1,000	7⅞	7½	7½	Salt Creek Producers	1,496,859	$10	40cSA	6-30-36	1.20	7½	5½	7⅞	5½
40½	32½	600	39½	38	38	South Penn Oil	1,200,000	$25	50c†	3-31-36	1.35	34½	21⅝	26½	17½
7⅞	3¼	1,200	4	3¼	3¾	Southern Pipe Line	100,000	$10	15cSA	3-2-36	.30	5	3⅞	5½	3½
60	54	100	59½	59½	59¼	Southwest Penna. Pipe Lines	35,000	$50	$10 spl.	7-1-36	5.00	56	44¼	47	41
23⅜	17⅛	2,900	18	17¼	17⅝	Standard Oil of Kentucky	2,604,790	$10	25cQ	6-15-36	1.25	24	18	18⅜	14⅝
14⅝	11½	200	11½	11½	11½	Standard Oil of Nebraska	188,403	$25	....	6-20-34	....	12	7¾	16⅞	8¼
36¼	21¾	2,900	25¾	24¾	25¼	Standard Oil of Ohio	753,740	$25	....	1-3-33	....	23⅝	11½	28½	12¼
5	2⅝	11,000	4½	4¼	4⅜	Sunray Oil	1,610,810	$1	....	4-15-31	....	2⅞	⅞	2	11/16
9¾	6	600	6¼	6⅛	6¼	Texon Oil & Land	336,028	N.P.	15cQ	6-30-36	.60	6⅞	5	11	4⅜
7½	4⅜	15,300	5¼	4¾	4⅞	Texas Gulf Producing Co.	888,076	N.P.	....	12-29-34	....	4¾	2½	7	3⅜

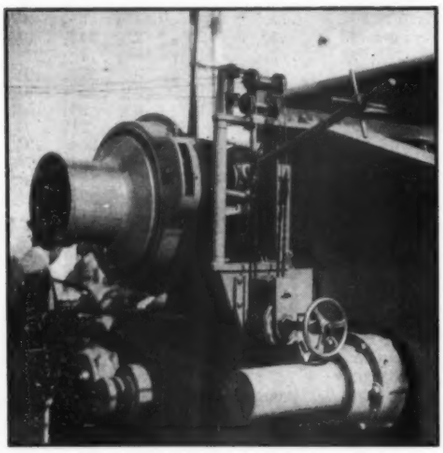
*Ex-dividend. †Includes extras. ‡Payable in Canadian funds.

Note.—In comparing highs and lows for the several years in the two tables, it will be necessary to take into consideration cases where there have been stock split-ups.

NEW OR IMPROVED EQUIPMENT

Operation of Catline Hoist Is Controlled by Single Lever

A new catline hoist, offered to drillers by Hill & Foster Co., Wichita Falls, Tex., contains a drum driven by a friction clutch and an automatic self-



emergizing brake to hold the load after it is hoisted. The operation is controlled by a single lever. Provision is made to spool 300 feet of one-half inch line to permit spooling of the entire wire catline during moves. Loads may be pulled to the top of the derrick and lowered or lifted at any desired speed.

When the loads are hanging on the brake they are entirely independent of the line shaft. This permits reversing or stopping the line shaft or holding the load for an indefinite period without damage to equipment.

Bulletins, Booklets and Other Literature for the Trade

Three bulletins are announced by Worthington Pump & Machinery Corp., Harrison, N. J., one on vertical triplex single-acting power pumps and two on horizontal single-piston pumps for general service.

A 30-page booklet obtainable from the Philadelphia Gear Works, G Street and Erie Avenue, Philadelphia, Pa., is devoted to the Philadelphia "Motoreducer," designed to meet gear-reduction problems.

Catalog N-33A, sent on request by the Leeds & Northrup Co., 4934 Stenton Avenue, Philadelphia, Pa., describes the "Silver Anniversary" and other Micromax recording machines.

A bulletin covering liquid level controllers, diaphragm motor valves, lever valves, float valves and other devices for the control of pressures and levels is announced by the McAlear Manufacturing Co., 1901 South Western Avenue, Chicago.

Cochrane Corp., Seventeenth Street and Allegheny Avenue, Philadelphia, Pa., offers a mailing-piece describing the Cochrane orifice meter.

Bovaird paraffin steamers are described and illustrated in bulletin No. 30, mailed on request by the Boviard Supply Co., Tulsa, Okla.

An engineering drafting-room chart presenting in concise form data necessary for producing arc-welded designs, is announced by the Lincoln Electric Co., Cleveland, Ohio. The chart should be found particularly helpful by companies changing over their products to arc-welded construction.

The Bristol Co., New York, has published bulletin No. 444 which describes the new model 90 pneumatic type controller for temperature, liquid level, and pressure.

"Garrison, the Modern Dry Method of Fire Extinguishment," is the subject of a 36-page booklet containing many valuable suggestions on first aid in fires, obtainable from the Garrison Engineering Corp., Great Barrington, Mass.

How B&B ropes helped lay a 130-mile line through Michigan in midwinter forms the subject of an interesting article in the latest issue of the Yellow Strand, published by the Broderick & Bascom Rope Co., St. Louis, Mo.

A "long-needed solder for difficult soldering problems" is described in a folder mailed on application by the Alumaweld Co. of America, 2442 Park Way, Chicago.

The Pyle-National Co., North Kostner Avenue, Chicago, has prepared a bulletin, No. 199, on utility floodlights, suitable for engine-room installation, etc.

Men Widely Known in the Equipment Field

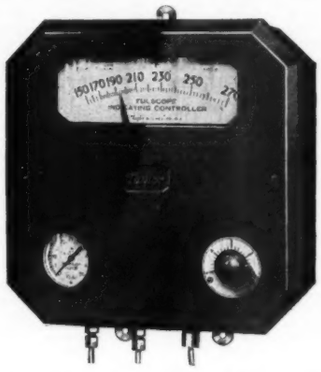
At the annual meeting of shareholders Alfred Kauffmann was elected president of Link-Belt Co., Chicago, to succeed George P. Torrence, who resigned. Mr. Kauffmann started with the company 35 years ago as a draftsman. His career has included many responsibilities, such as designing engineer, superintendent of construction, sales engineer, vice president and manager Link-Belt plant in Philadelphia, vice president in charge of Link-

ALFRED KAUFFMANN

Belt Dodge and Ewart plants in Indianapolis, and for the past four years first vice president in charge of the company's Chicago plant operations. He was president of the company from 1924 to 1932, and has been a director since 1922.

Fulscope Indicating Controller Is Put on Market by Taylor

For processes where close throttling control is imperative but a record of the processing is not essential, the Taylor Instrument Companies, Rochester, N. Y., has put on the market a highly adapt-



able, air-operated temperature and pressure controller of the indicating type. Many of the design and performance features of this new instrument have been available previously in the Taylor Fulscope recording controllers; hence the name, Fulscope indicating controller. Practically every advantage of a custom-built instrument is said to be possible through the diversity of optional construction features. But of even greater importance is the simplicity of the numerous adjustments by means of which the controller may be adapted to changes in future processing requirements.

Outstanding features either high-range or full-range sensitivity, as required, the former for processes having small time lags, the latter for time lags of any magnitude. Both are fully adjustable by turning a graduated dial. The control point may be adjusted to any value within the control range. Direct-set feature is optional. Controller action may be reversed in the field by altering the position of a link. Many standard control ranges may be chosen from within the limits of minus 100 and plus 1,200 F., or full vacuum and 3,000 pounds pressure. Control ranges are interchangeable.

Bantam Expands Again

The Bantam Ball Bearing Co. is installing new machinery and building an addition to its plant in South Bend, Ind., at a cost of $250,000. This expansion gives an additional area slightly greater than the addition built last year which gave the factory a 60 per cent increase in floor space. The company manufactures roller and ball bearings in sizes ranging from one-thirty-second of an inch to 60 inches in diameter.

"Smootharc" Welding Electrodes

A new line of coated rods for D.C. welding is being made and sold through the Harnischfeger Corp., Milwaukee, Wis., manufacturer of P&H-Hansen arc-welding equipment. The present line includes five different types with both high and low rates of fluidity for various types of work in welding in flat, vertical or overhead positions and with ferrous and non-ferrous metals. Service tests show tensile strength of welds from 55,000 to 75,000 pounds per square inch with various types of rods ranging from three-thirty-seconds inch to three-eighths inch in size. "Smootharc" electrodes are designed primarily to speed up welding operations with a smoother, more easily handled arc and to reduce spatter losses.

Ditcher Making Trench 5 Feet Deep Is Only 4 Feet Wide

Barber-Greene Co., Aurora, Ill., has announced the B-G model 64-B ditcher, which has all the features of the previous 64 machine with a digging boom for a maximum of 5 feet. The boom is equipped with buckets which may be adjusted for 8 inches or 11 inches width. A boom 3 feet 6 inches deep is available if desired.

With a total overall width of only 48 inches,

the new machine is able to dig in close quarters. The miniature size of the ditcher makes it especially useful for traveling from job to job on a small trailer. Being full crawler mounted it loads and unloads itself. The 64-B incorporates all of the standard Barber-Greene ditcher features including automatic overload release sprocket, which slips when an overload occurs and resets itself; full crawler mounting; three-point suspension; vertical boom, milling action digging; self-cleaning buckets, instantly reversible spoil conveyor, etc.

One of the primary reasons for designing this machine was to lower gas lines in which the condensation had been frozen during the severe winter. The vertical boom permits digging in and around a "honeycomb" of underground pipes and obstructions. The machine is especially adapted for laying small lines in and around refineries, etc.

Washer Stands up Under Hard Treatment in the Oil Field

A Westinghouse washer, operated an average of six hours a day, seven days a week since March, 1935, in the oil fields of Oklahoma has never been under shelter and although it has been subjected to abnormal use, dust storms, rains, hails, and burning sunshine, the crew reports not a chipped place has been found inside the tub. Added to the harsh weather conditions, the machine is used to wash the drilling crew's overalls, garments with heavy brass buttons, clips, etc, that are not removed before being tossed into the machine.

Once a well is started, it is in continuous operation, and at the end of each shift five men have to wash their overalls, which have become soaked with oil and muck. Often the overalls are placed in the machine, distillate is poured over them and the machine is turned on and allowed to run until the grease is loosened. Then the distillate is allowed to drain off, and cold water, with great quantities of soap chips, is put in and the machine is allowed to run, without attention. until the overalls are clean. According to the crew not an adjustment has been necessary, not a penny has been spent for service, and the machine has not even been oiled.

Here and There With Men Who Manufacture Equipment

W. E. Fletcher has been appointed sales manager of the tank division of Gar Wood Industries, Inc., Detroit, Mich. Previously he was with the Fruehauf Trailer Co. as manager of the oil division.

The Metallizing Co. of America, Inc., 1218 Long Beach Avenue, Los Angeles, Calif., has opened a branch office at 407 Call Building, San Francisco, under the management of E. T. Parkinson, metallizing engineer.

Walter Kidde & Co., Inc., Bloomfield, N. J., has appointed Emmet F. Blakemore, Jr., of 3623 Hall Street, Dallas, Tex., as its distributor in that territory, in charge of all fire-extinguishing equipment sales including Lux and the new Kidde-Foam lines.

The Gilbert & Barker Manufacturing Co., Springfield, Mass., has opened an office and showroom at 900 South Michigan Avenue, Chicago, under the management of Walter C. Leitch. The service-station equipment division and the oil heating and air-conditioning division will be combined.

At the annual meeting of the board of directors of the Hewitt Rubber Corp., Buffalo, N. Y., Thomas Robins, Jr., was chosen president; F. G. Cooban, vice president; E. K. Twombly, vice president and treasurer, and J. H. Hayden, secretary.

Allen Joins A. O. Smith

Robert E. Allen has joined the staff of the A. O. Smith Corp., after serving seven years as assistant oil umpire of California. He dressed his first bit while working in northern West Virginia oil fields during a high-school vacation. Since that time, with the exception of two years spent in the engineering departments of Pittsburgh district steel mills, he has been in the oil business. After graduating from the University of West Virginia, he went to California, doing work in various fields. Then came consulting work in New Mexico, Texas and Mexico, followed by two years of exploration work in Australia. Back in California, he became field superintendent for Continental Oil. He joined the umpire's office as assistant in 1929.

"Superector" Ratchet Wrench

J. H. Williams & Co., 75 Spring Street, New York, has brought out a new line of heavy-duty reversible ratchet wrenches. The "Superector" wrenches embody several new features, including quadruple pawls, instead of the usual two. These provide double bearing and strength with greatly increased durability. Handles are drop-forged to utilize the extra strength afforded by the pawls.

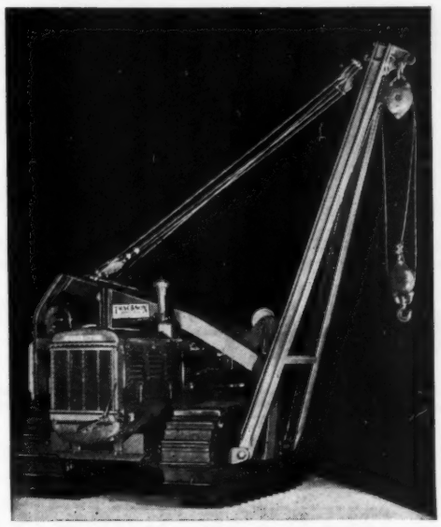
Built for rapid operation in work requiring strong, fast-action tools, these wrenches are made in five sizes 24-inch to 48-inch, with both box and square sockets.

Bridgeport Extends Services

Stocks are being moved into Rodessa, La., for the new Bridgeport Machine Co.'s branch store. New, used, sales and rental equipment used in development of the territory will be carried and 24-hour service will be maintained, according to E. M. Johnson, in charge of the store. J. M. Loban will be special sales representative in Shreveport and surrounding territory.

Trackson Pipe-Layer Has Wide Range of Uses in the Field

The Trackson Co., Milwaukee, Wis., is introducing its improved Model 40 Trackson pipe-layer, described as a sturdy, dependable unit for hustling



pipe, stringing, lining up, tying in and bending; strong in construction, easy to operate, fast and efficient. All control levers are located at the driver's fingertips and operations simplified to a minimum.

The boom is ruggedly constructed to handle long joints of pipe on any right of way. Both load-line and boom raise and lower under power by means of worm-driven winches. Full control is designed to assure accurate and safe operation. The boom can be lowered to the horizontal position for lateral bending, pulling, etc. When the boom has been raised to vertical position, an automatic stop and kick-out prevents it from throwing over or bending. The load-line drum is equipped with a separate clutch and brake, permitting the load to be lowered without power if desired. A special cross-drive transmission allows load-line and boom drums to be operated independently or simultaneously.

The Trackson transmission provides three speeds forward and reverse on both load- and boom-lines, insuring the most efficient speed.

The American Car & Foundry Co., 30 Church Street, New York, is sending on request a 64-page catalog on its full-area lubricated plug valves.

BYRON JACKSON ANNOUNCES CHANGES IN PERSONNEL

R. L. (BOB) GIBBONS

Byron Jackson Co., oil tool division, has appointed R. L. (Bob) Gibbons to handle its sales work in Kansas, Wyoming, and Colorado and to cover northern Oklahoma. His headquarters will be in Wichita, Kans. Mr. Gibbons formerly was manager of field sales for Atlas Supply Co. at Seminole and Earlsboro.

J. G. Hood, who sold Byron Jackson tools in South Texas and Louisiana fields, was transferred to Southwest Texas to handle sales there and in West Texas and New Mexico.

J. G. (JACK) HOOD

Royal Dutch Report Shows an Increase in Net Income

NEW YORK, June 13.—An increase of about $11,000,000 in net income and the declarations that Russia is "steadily losing ground and can hardly be regarded as a rival there any longer" featured the 1935 annual report of Royal Dutch Co. just issued in New York.

Royal Dutch Co., parent of numerous subsidiaries operating in the United States and abroad, reported 1935 net income of 54,279,183 florins, about $36,856,000, after taxes and other charges. The 1934 net income was 38,131,575 florins, or about $25,908,000.

The Royal Dutch management reported that 1935 "would appear to mark the commencement of a recovery of the oil industry" for the world. The statement continued that efforts of American producers to stabilize the oil industry yielded more tangible results than in past years.

Referring to the conditions in Russia, the report said: "Although production in Russia increased somewhat, as a factor in the international oil market, this country is steadily losing ground and can hardly be regarded as a rival there any longer. By dint of increasingly reckless drilling they succeeded now and then in effecting a slight augmentation of their production, but new prospects do not seem to be opening up."

The crude oil production of companies affiliated with the Royal Dutch-Shell group for 1935 amounted to 186,340,133 bbls., compared with 168,546,084 bbls. in 1934, according to the annual report of the Royal Dutch Co.

The production for 1935 and 1934, by countries, estimated in barrels, on the basis of 7 bbls. per metric ton, follows:

	1935	1934
Dutch East Indies	29,899,807	31,350,942
Sarawak	1,828,316	2,000,838
Seria (Brunei)	3,275,538	2,715,804
Egypt	1,235,052	1,502,697
Rumania	10,780,819	11,907,378
Mexico	22,039,192	17,160,346
Venezuela	59,286,129	57,179,920
Trinidad	1,338,428	1,042,531
United States:		
Shell Petroleum Co.	26,593,840	22,797,803
Shell Oil Co. of California	21,288,680	16,045,421
Argentina	3,177,825	3,338,405
Iraq	5,596,507	1,503,999
Total	186,340,134	168,546,084

Production of the Dutch-Shell group in Venezuela, 59,286,129 bbls. exceeded the group's output in any other country, including the United States, where production totaled 47,882,520 bbls.

CLASSIFIED ADVERTISING

For Sale—Maps

OFFICIAL NOMENCLATURE MAP OF MID-CONTINENT AREA

SHOWS: Oil fields in green and gas fields in red, hand-colored. Index giving location of each field and official name as designated by the various state nomenclature committees. Cities, towns, county seats and principal streams.

AREA COVERED: East portion of Colorado and New Mexico, Southwest portion of Nebraska, States of Kansas, Oklahoma and Texas, Southwest portion of Arkansas, West portion of Louisiana.

SIZE: 66" x 90" SCALE 1" = 12 miles.

This map on linen attached to heavy spring roller in dust proof steel case.

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NEW MEXICO Oil and Gas Leases and royalties. Send 50 cents in stamps for new State Oil Map of New Mexico. Roy G. Barton, Clovis, New Mexico.

3,500 acres for a well. Becker Geology.
ALLAN S. WILLIS,
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SOUTHERN WARD COUNTY Fee and Royalty at sacrifice. 160 acres in active area deep and shallow possibilities. L. E. Hults, Petroleum Bldg., Fort Worth.

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ANDREW J. BARRETT
The Philtower
Tulsa, Oklahoma.

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First National Building
Oklahoma City, Okla.

ONE-HALF INTEREST 40 acres with 15-bbl. well now pumping. Allan S. Willis, Lawton, Okla.

PRODUCING OIL ROYALTIES
for dealers.
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SHERIDAN and GOVE Cos., Kansas drlg. blks. Royalties, Leases, Low Prices. Mutual Oil Enterprise, Oakley, Kansas.

Royalties—Production

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(ALL FIELDS)
Bought, Sold and Quoted.
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715 Van Nuys Bldg.,
Los Angeles, Calif.
Telephone Trinity 7391

One-half interest 900 acres, shallow production, great little field for development. Allan S. Willis, Lawton, Okla.

FRIO COUNTY, Texas, royalty adjacent to production; under Amerada Blk. 250-a. lease ¼ mile from Amerada's No. 1, McWilliams, tr. 17, formerly owned by Amerada. T. N. Klepper, 208 Grove Place, Alamo Heights, San Antonio, Tex.

OBION COUNTY, TENN. Drlg. Blk. Approx. 4,000 acres 4 to 6 miles from test being made. Also a few small blocks $3 to $5 per acre. Tenn. Lease & Roy. Co., 916 Exchange Bldg., Memphis, Tenn.

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Bought — Sold — Wholesale.
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CHOICE TEXAS ACREAGE — Zapata, Jim Hogg, Cameron, Caldwell, Lamar and other counties, proven or semi-proven. Also producing properties. G. W. Elliott, 430 Bedell Bldg., San Antonio, Texas.

Leases—Production

SHELBY COUNTY at last has a producing well. Several tests now going down. This County has been worked out and approved by best geologists. Have 1,000 acres on structure for drilling contract. Small bonus. C. A. Parker, Box 451, Center, Texas.

NEW MEXICO Oil and Gas Leases and Royalties. Also inquiries and listings wanted. F R. WARN, Santa Fe, New Mexico.

NUECES COUNTY, Tex. Oil and Gas Records. Daily report $5 per month. The Daily Review, Corpus Christi, Tex.

Leases—Production

NEW MEXICO—My weekly scout report furnishes complete and reliable information on New Mexico developments. Send for copy. W. S. Patterson, Santa Fe, New Mexico.

FOR SALE Oil & gas leases in proven territory and on leases adjoining new production where drilling is now being done, also leases for drilling contracts one or more wells. W. P. HARLEY, Bowling Green, Kentucky.

½ int. 1,000 a. oil and gas leases S.W. Ind. and first well $2,500. Perfect geol. approved loc. near prod. F. M. Pierson, Box 748, Terre Haute, Indiana.

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Near Major Oil Company Holdings
30,000 Acres to Choose From
Will Sell 40 Acres or More at a Time
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Bellingham, Washington

NORTHWEST LEA COUNTY have three 160-acre State leases close to reported new location, adjoining heavy major ownership. Price reasonable. Details on request. F. R. Warn, Santa Fe, New Mexico.

TALCO OIL PROPERTIES: Will buy or sell proven and semi-proven leases and royalties in Talco oil field, the hottest spot in Texas. Frank Robertson, Marvin Wells, and Frank Hill, Mt. Pleasant, Texas.

Ector County Drilling Block — 800 acres within 2,700 yards of Dunning's No. 1 Cummings, which flowed 400 bbls. in 24 hours, pay only partially penetrated, not shot or acidized. Sound reasons indicate heavy production will be found on this block. Wire H. B. Opp, Burnet, Texas.

Write for oil properties, drilling blocks, leases, in new Louisiana fields. G. Lucas, 208 Milam Street, Shreveport, La.

FOR LEASE for oil purposes. Several hundred acres of land in Anderson County, Kans. Oil has been drilled in on this farm several years ago.
W. M. DARY
224 East 16th St., Long Beach, Calif.

TO SETTLE ESTATE, 2,500 acres in Titusville, Pa., field. 315 wells, twenty powers, shallow sands. Free of debt. Excellent results on adjoining leases by repressuring. Reasonable price and payments. Box 64, Bradford, Pa.

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SALESMAN: Engineering graduate with proven selling ability and knowledge of production methods—to sell well known line of multi-cylinder engines for well pumping and drilling. Give full qualifications and experience. Address Box H-311, The Oil and Gas Journal, Tulsa, Oklahoma.

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We will erect latest type 55,000 bbl. all steel storage tanks at a great saving.

Over 500 tanks on hands from 500 bbls. to 80,000 bbls. Ready for delivery. 50—55,000 Bbl. tanks now being cut down, Haynesville, La. These tanks all built new 1924 and are extra heavy, weighing 20 tons more than standard tank.

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GASOLINE PLANT EQUIPMENT

3—320 h.p. Worthington 18½" x 20" Gas Engine Compressor Units;

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1—48' x 54' x 12' Steel and galvanized sheet iron building with Monitor type ventilation;

Other miscellaneous equipment.

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REFINERY EQUIPMENT

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Gasoline, Run Down and Pressure Tanks.

Pumps, all kinds and sizes, condenser boxes, agitators, pipe stills, everything needed for refinery requirements. Complete line of valves and fittings, Oakite treated and tested.

W. C. Berry Wire—Phone—Write H. J. Galamba

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29 lb. Standard 8 thread line pipe
A-1 Shape ready for shipment
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FOR SALE — Completely equipped pipe shop doing a profitable business in an active Western Kansas town. Due to owners age he is unable to properly look after business. Equipment includes one No. 16 and one No. 12 Bignall-Keeler Machine and complete set of dyes and tools. Terms to reliable parties. Address Box H-320, The Oil and Gas Journal, Tulsa, Okla.

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SUBSTANTIALLY built apartment house for sale; income more than $225 monthly; investors, agents, write J. R. Hodges, 207 E. Laurel, San Antonio, Tex.

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Classified advertising rates: First insertion, 35 cents a line; each additional insertion, 25 cents a line, PAYABLE IN ADVANCE. Six words usually make a line. Count as a word each one-letter word and each group of figures. White space computed at regular line rate. Allow two extra lines for blind ads. Ads of less than three lines not accepted. No formal acknowledgment is made, and proofs cannot be shown in advance of publication.

	1 time	2 times	3 times	4 times		1 time	2 times	3 times	4 times
3 Lines	*$1.05*	*$1.80*	*$2.25*	*$3.30*	*7 Lines*	*$2.45*	*$4.20*	*$5.95*	*$7.70*
4 Lines	*1.40*	*2.40*	*3.40*	*4.40*	*8 Lines*	*2.80*	*4.80*	*6.80*	*8.80*
5 Lines	*1.75*	*3.00*	*4.25*	*5.50*	*9 Lines*	*3.15*	*5.40*	*7.65*	*9.90*
6 Lines	*2.10*	*3.60*	*5.10*	*6.60*	*10 Lines*	*3.50*	*6.00*	*8.50*	*11.00*

We reserve the right to withhold all advertising of questionable character. To avoid delay be sure to send remittance with copy. We will set your ad in the smallest amount of space possible and refund all overpayments. One-time insertions will not be run until fully paid. Forms close MONDAY NOON before each issue date.

THE OIL AND GAS JOURNAL

Tulsa, Oklahoma

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July

31—Dallas, Tex., Interstate Oil Compact Commission meeting.

September

?—Tulsa or Oklahoma City, American Petroleum Institute, Division of Production, Mid-Continent district.

9-10—Louisville, Ky., Kentucky Petroleum Marketers Assn., Brown Hotel.

7-12—Pittsburgh, Pa., American Chemical Society, semiannual meeting.

7-12—Washington, D. C., World Power (Fuel) Conference.

16-18—Atlantic City, N. J., National Petroleum Association, thirty-fourth annual meeting, Hotel Traymore.

Week of 28—Indianapolis, Ind., National Tax Conference.

October

5-9—Atlantic City, N. J., National Safety Congress.

25-30—Atlantic City, N. J., first annual convention association of Gas Appliance and Equipment Manufacturers, annual convention American Gas Association, Atlantic City Auditorium.

?—Cleveland, Ohio, American Institute of Mining and Metallurgical Engineers.

November

9-12—Chicago, American Petroleum Institute seventeenth annual meeting.